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*Post-graduate



UNIVERSITY OF MARYLAND—GENERAL VIEW
(Medical, Dental, Law and Pharmacy)

BULLETIN
OF THE
University of Maryland School of Medicine
AND
College of Physicians and Surgeons.

Successor to THE HOSPITAL BULLETIN, of the University of Maryland, BALTIMORE MEDICAL COLLEGE NEWS, and the JOURNAL of the Alumni Association of the College of Physicians and Surgeons.

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CALENDAR

1923-1924

SCHOOL OF MEDICINE.

September 18 to 25, Inc.—Examinations for advanced standing.

October 1—Regular session begins.

November 11—Closed (Armistice Day).

November 29—Closed (Thanksgiving Day).

December 21—Christmas recess begins after last lecture period.

January 2—Lectures resumed 9 A. M.

February 22—Closed (Washington's Birthday).

April 17—Easter recess begins after last lecture period.

April 22—Lectures resumed 9 A. M.

June 7—Commencement.

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Control of the University of Maryland is vested in a Board of nine Regents, appointed by the Governor and confirmed by the Senate for terms of nine years each. The general administration of the University is vested in the President. The University Council is an advisory body, composed of the President, the Assistant to the President, the Director of the Agricultural Experiment Station, the Director of the Extension Service, and the Deans. The University Council acts upon all matters having relation to the University as a whole, or to co-operative work between the constituent groups. Each school has its own Faculty Council, composed of the Dean and members of its Faculty; each Faculty Council controls the internal affairs of the group it represents.

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- The College of Arts and Sciences,
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- The School of Law,
- The School of Dentistry,
- The School of Pharmacy,
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- The College of Home Economics,
- The Graduate School,
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The Schools of Medicine, Law, Dentistry, Pharmacy and Commerce are located in Baltimore; the others in College Park, Maryland.

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H. W. WHEATON, M.D.

W. J. TODD, M.D.

R. S. KIRK, M.D.

C. R. GOLDSBOROUGH, M.D.

P. ARTIGIANI, M.D.

G. E. WELLS, M.D.

H. J. DORF, M.D.

E. C. REITZEL, M.D.

D. H. LAWLER, M.D.

F. S. OREM, M.D.

H. R. LICKLE, M.D.

C. E. MACKE, M.D.

*Neurology.*IRVING J. SPEAR, M.D., *Professor of Neurology.*G. M. SETTLE, M.D., *Chief of Clinic.*

J. A. SKLADOWSKY, M.D.

B. PUSHKIN, M.D.

*Psychiatry.*R. M. CHAPMAN, M.D., *Professor of Psychiatry.*

PAUL J. EWERHARDT, M.D.

GEORGE E. CLARKE, M.D.

*Tuberculosis.*C. C. HABLSTON, M.D., *Chief of Clinic.**Surgery.*CHARLES REID EDWARDS, M.D., *Chief of Clinic.*

H. M. FOSTER, M.D.

E. S. JOHNSON, M.D.

C. A. REIFSCHNEIDER, M.D.

D. E. FAY, M.D.

E. S. PERKINS, M.D.

W. R. JOHNSON, M.D.

W. K. HARRYMAN, M.D.

JAMES BROWN, M.D.

C. F. HORINE, M.D.

*Orthopedics.*R. TUNSTALL TAYLOR, A.B., M.D., *Professor of Orthopedic Surgery.*COMPTON RILEY, M.D., *Chief of Clinic.*

W. H. DANIELS, M.D.

H. L. WHEELER, M.D.

W. H. DARBY, M.D.

MERCY HOSPITAL STAFF

*Genito-Urinary.*W. H. TOULSON, M.D., *Chief of Clinic.*

AUSTIN H. WOOD, M.D.

AMOS F. HUTCHINS, M.D.

VICTOR RICHARDS, M. D.

MILTON C. LANG, M.D.

*X-Ray.*HENRY J. WALTON, M.D., *Roentgenologist.*MISS SUE W. SHRIVER, *Technician.**Dermatology.*H. M. ROBINSON, M.D., *Chief of Clinic.*

J. E. GATELY, M.D.

J. A. BUCHNESS, M.D.

*Gynecology.*R. G. WILLSE, M.D., *Chief of Clinic.*

G. A. STRAUSS, M.D.

T. K. GALVIN, M.D.

J. M. HUNDLEY, JR., M.D.

NATHAN WINSLOW, M.D.

LEO BRADY, M.D.

*Obstetrics.*L. H. DOUGLASS, M.D., *Chief of Clinic.*

F. H. MACHIN, M.D.

J. G. M. REESE, M.D.

J. W. EBERT, M.D.

DUDLEY PLEASANTS BOWE, B.A. M.D.

STANLEY G. MATHEWS, M.D.

*Eye and Ear.*HARRY FRIEDENWALD, M.D., *Professor of Ophthalmology and Otology.*

J. W. DOWNEY, M.D.

H. L. SINSKY, M.D., *Chief of Clinic.**Nose and Throat.*E. A. LOOPER, M.D., *Clinical Professor of Diseases of Throat and Nose.*FRANK B. ANDERSON, *Chief of Clinic.*

GEORGE MURGATROYD, M.D.

CHARLES J. NORTON, M.D.

J. G. ALEXANDER, M.D.

*Social Service.*MISS GRACE PEARSON, *Directress.*

MERCY HOSPITAL STAFF.

SURGICAL DIVISION

ARCHIBALD C. HARRISON, M.D.

ALEXIUS MCGLANNAN, M.D.

C. F. BLAKE, M.D.

W. D. WISE, M.D.

Associate Surgeons.

ELLIOT H. HUTCHINS, M.D.

HARVEY B. STONE, M.D.

R. H. LOCHER, M.D.

A. M. EVANS, M.D.

THOMAS R. CHAMBERS, M.D.

F. L. JENNINGS, M.D.

Assistant Surgeons.

AMOS HUTCHINS, M.D.
I. O. RIDGLEY, M.D.
N. C. MARVEL, M.D.
EVERARD BRISCOE, M.D.

F. X. KEARNEY, M.D.
CHAS. MAXON, M.D.
H. B. McELWAIN, M.D.
D. J. PESSAGNO, M.D.

Ophthalmologist and Otologist.

HARRY FRIEDENWALD, M.D.

Associates.

H. K. FLECK, M.D.

J. W. DOWNEY, M.D.

Rhinologists and Laryngologists.

FRANK D. SANGER, M.D.

GEORGE W. MITCHELL, M.D.

Associate Rhinologists and Laryngologists.

W. F. ZINN, M.D.

RAYMOND MCKENZIE, M.D.

Proctologist.

CHARLES F. BLAKE, M.D.

Assistant.

L. J. ROSENTHAL, M. D.

Orthopedic Surgeon.

ALBERTUS COTTON, M.D.

Associate.

H. L. ROGERS, M.D.

Urologist.

A. G. RYTINA, M.D.

Associate.

A. J. GILLIS, M.D.

MEDICAL DIVISION.

Physicians.

MAURICE C. PINCOFFS, M.D.

WILLIAM F. LOCKWOOD, M.D.

CARY B. GAMBLE, M.D.

STANDISH McCLEARY, M.D.

H. G. BECK, M.D.

Associates.

HUBERT C. KNAPP, M.D.

E. E. MAYER, M.D.

C. C. W. JUDD, M.D.

BARTUS P. BAGGOTT, M.D.

J. W. MARTINDALE, M.D.

G. McLEAN, M.D.

Assistant.

LEON FREEDOM, M.D.

Gastro-Enterologist.

JULIUS FRIEDENWALD, M.D.

MERCY HOSPITAL STAFF

Associates.

T. FREDERICK LEITZ, M.D.

THEODORE MORRISON, M.D.

Assistants.

MAURICE FELDMAN, M.D.

JOSEPH SINDLER, M.D.

Pediatricists.

JOHN RUHRAH, M.D.

EDGAR B. FRIEDENWALD, M.D.

Associate.

HARRY GOLDBERG, M.D.

Neurologist and Psychiatrist.

ANDREW C. GILLIS, M.D.

Assistant.

MILFORD LEVY, M.D.

Dermatologist.

MELVIN ROSENTHAL, M.D.

OBSTETRICAL DIVISION.

Obstetricians.

GEO. W. DOBBIN, M.D.

CHARLES E. BRACK, M.D.

Associate Obstetricians.

E. P. SMITH, M.D.

T. K. GALVIN, M.D.

Assistant Obstetrician.

J. J. IRWIN, M.D.

GYNECOLOGICAL DIVISION

Gynecologists.

WILLIAM S. GARDNER, M.D.

ABRAHAM SAMUELS, M.D.

GEORGE A. STRAUSS, M.D.

Associate Gynecologists.

T. K. GALVIN, M.D.

E. P. SMITH, M.D.

PATHOLOGICAL DIVISION.

Pathologists.

STANDISH MCCLEARY, M.D.

HUGH R. SPENCER, M.D.

Clinical Pathologist.

H. T. COLLEMBERG, M.D.

Technicians—SISTER M. JOAN, Ph.G., R.N., ANNA CHENOWETH, R.N.

DEPARTMENT OF DENTISTRY

Attending Dentists.

NORVAL McDONALD, D.D.S.

LE ROY KNOBLE, D.D.S.

X-RAY DEPARTMENT.

Radiographers.

ALBERTUS COTTON, M.D.

HARRY L. ROGERS, M.D.

MERCY HOSPITAL RESIDENT STAFF.

K. W. GOLLEY, *Chief Resident.*

Internes.

RAYMOND PETERS, M.D.
ERNEST EDLAVITCH, M.D.
NATHANIEL BECK, M.D.
R. L. MURRAY, M.D.
PHILIP HEITSCH, M.D.
H. C. RUCHE, M.D.
H. V. DWYER, M.D.

C. G. MCCOY, M.D.
JAMES TUOHY, M.D.
THEODORE GIFFIN, M.D.
R. R. JONES, M.D.
S. E. CHAMBERS, M.D.
M. L. MANLEY, M.D.
H. F. BOUGARDT, M.D.

DISPENSARY STAFF OF MERCY HOSPITAL.

Surgery.

Supervisors.

ALEXIUS MCGLANNAN, M.D.

W. D. WISE, M.D.

Attending Surgeons.

A. M. EVANS, M.D.
D. H. MOHR, M.D.
F. X. KEARNEY, M.D.
I. O. RIDGELY, M.D.

O. H. LLOYD, M.D.
CLYDE MARVEL, M.D.
A. F. HUTCHINS, M.D.
EVERARD BRISCOE, M.D.

H. B. MCELWAIN, M.D.

Genito-Urinary Surgery.

Supervisor, A. G. RYTINA, M.D.

HARRIS GOLDMAN, M.D.
A. J. GILLIS, M.D.
E. P. SMITH, M.D.

H. T. COLLENBERG, M.D.
H. C. KNAPP, M.D.
J. H. COLLINSON, M.D.

H. PALMISANO, M.D.

Orthopedic Surgery.

ALBERTUS COTTON, M.D.

HARRY L. ROGERS, M.D.

Medicine.

Supervisors, WM. F. LOCKWOOD, M.D., M. C. PINCOFFS, M.D.

Attending Physicians.

HERMAN SEIDEL, M.D.
WETHERBEE FORT, M.D.
F. A. RIES, M.D.
F. L. BADAGLIACA, M.D.

B. T. BAGGOTT, M.D.
EDWARD NOVAK, M.D.
JAS. BARRY RYAN, M.D.
H. SHEPPARD, M.D.

Diseases of Stomach.

Supervisor, JULIUS FRIEDENWALD, M.D.

Attending Physicians.

T. FREDERICK LEITZ, M.D.

JOSEPH SINDLER, M.D.

M. FELDMAN, M.D.

S. ZINBERG, M.D.

THEODORE H. MORRISON, M.D.

A. EISENBERG, M.D.

E. E. GREMPER, M.D.

W. F. ZINN, M.D. *Esophagoscopist.**Nervous Diseases.**Supervisor, A. C. GILLIS.**Attending Physicians.*

MILFORD LEVY, M.D.

GEO. F. SARGEANT, M.D.

*Diseases of Women.**Supervisors.*

W. S. GARDNER, M.D.

A. SAMUELS, M.D.

Attending Surgeons.

E. P. SMITH, M.D.

T. K. GALVIN, M.D.

C. F. J. COUGHLIN, M.D.

Diseases of Nose and Throat.

W. F. ZINN, M.D.

R. F. MCKENZIE, M.D.

Diseases of Eye and Ear.

H. K. FLECK, M.D.

J. W. DOWNEY, M.D.

J. I. KEMLER, M.D.

M. RASKIN, M.D.

Pediatrics.

HARRY GOLDBERG, M.D.

I. J. FEINGLOS, M.D.

Proctology.

L. J. ROSENTHAL, M.D.

Dermatology.

MELVIN ROSENTHAL, M.D.

Assistant.

WILLIAM G. COPPAGE, M.D.

Dental Clinic.

NORVAL McDONALD, D.D.S.

LE ROY KNOBLE, D.D.S.

*Social Service Department.*CLARA E. CONNERY, R.N., *Director.*CATHERINE CAMPBELL, R.N., *Assistant.**Dispensary Directress.*

SISTER M. HELEN, R.N.

THE JAMES LAWRENCE KERNAN HOSPITAL AND INDUSTRIAL
SCHOOL OF MARYLAND FOR CRIPPLED CHILDREN.

R. TUNSTALL TAYLOR, A.B., M.D., *Surgeon in Chief.*

Associate Surgeons.

SYDNEY M. CONE, A.B., M.D.

ALBERTUS COTTON, A.M., M.D.

COMPTON RIELY, M.D.

Attending and Dispensary Surgeons.

W. H. DANIELS, M.D.

J. ALBERT KEY, B.A., M.D.

Instructors in Corrective Gymnastics.

MISS ANITA RENSHAW PRESTMAN

MISS ELIZABETH EMORY.

MISS FLORENCE GRAPE.

MISS MARY H. LEE, *Principal of School.*

Roentgenologists.

HENRY J. WALTON, M.D.

J. F. LUTZ, M.D.

Attending Plastic Surgeon.

JOHN STAIGE DAVIS, B.Sc., M.D.

Pediatricist.

BENJAMIN TAPPAN, B.A., M.D.

Attending Surgeon.

A. M. SHIPLEY, M.D.

Attending Neuro-Surgeon.

CHARLES BAGLEY, JR., M.D.

Attending Laryngologist.

F. B. ANDERSON, M.D.

Attending Dermatologist.

JOHN R. ABERCROMBIE, A.B., M.D.

Attending Pathologist.

HOWARD J. MALDEIS, M.D.

BAY VIEW HOSPITAL STAFF

Attending Urologist.

GIDEON TIMBERLAKE, M.D.

Attending Oculist and Aurist.

WILLIAM TARUN, M.D.

Attending Neurologist.

IRVING J. SPEAR, M.D.

Attending Dentists.

G. E. P. TRUITT, D.D.S.

J. B. BELL, D.D.S.

Consulting Surgeons.

J. M. T. FINNEY, A.B., M.D.

RANDOLPH WINSLOW, A.M., M.D., LL.D. ARCHIBALD C. HARRISON, M.D.

Consulting Physicians.

THOMAS R. BROWN, A.B., M.D.

LEWELLYS F. BARKER, A.B., M.D.

THOMAS F. FUTCHER, A.B., M.D.

WILLIAM S. THAYER, A.B., M.D.

Consulting Oculist.

HIRAM WOODS, M.D.

Consulting Laryngologist.

JOHN N. MACKENZIE, A.B., M.D.

Dispensary and Social Service Nurse.

MISS MABEL BROWN, R.N.

Head Nurse.

MISS IDA LASHLEY, R.N.

STAFF OF THE CITY HOSPITALS AT BAYVIEW.

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CONSULTING STAFF.

Ophthalmologist.

JAMES J. MILLS, M.D.

Otologist.

WILLIAM TARUN, M.D.

Gynecologist.

R. G. WILLSE, M.D.

Urologist.

W. H. TOULSON, M.D.

Laryngologists.

FRANK DYER SANGER, M.D.

H. R. SLACK, M.D.

Pediatrician.

JOHN RUHRAH, M.D.

Neurologist.

HENRY M. THOMAS, M.D.

Psychiatrists.

HENRY J. BERKELY, M.D.

ADOLPH MEYER, M.D.

Orthopedist

H. L. WHEELER, M. D.

Assistant Visiting Physieian.

CHARLES R. AUSTRIAN, M.D

Assistant Visiting Surgeon.

FRANK S. LYNN, M.D.

**MATRICULATES, UNIVERSITY OF MARYLAND SCHOOL OF
MEDICINE AND COLLEGE OF PHYSICIANS
AND SURGEONS, 1922-1923.**

POST-GRADUATES AND SPECIAL STUDENTS.

Dobson, James Francis, M.D.,	South Carolina
Geraghty, Francis Joseph,.....Maryland	Schneider, George Alfred, M.D.....Maine

FOURTH YEAR CLASS.

Name	State	Name	State
Beck, Nathaniel Monroe, A.B....	Maryland	McCullough, Carlton S. L., B.S.	Pennsylvania
Belenky, Jacob.....	New York	McLean, Herbert, A.B.....	New Jersey
Berkson, Morris Irwin.....	Pennsylvania	Moler, Raleigh Miller, B.S....	West Virginia
Bowers, Thaddeus R., Jr., A.B.	North Carolina	Murray, Robert Lebby, B.S....	North Carolina
Dart, Frederick Bond.....	Connecticut	Myers, Karl Johnson, B.S....	West Virginia
Desane, Joseph.....	New York	Newcomer, David Ridenour, B.S..	Maryland
Edmonds, John Milton.....	Michigan	Peterman, James Elmer.....	Maryland
Fleshman, Dewey Lynwood, B.S.,	West Virginia	Povalski, Alexander William...	New Jersey
Giffin, Theodore Clifton, B.S.	West Virginia	Prather, Fonzo Goff, B.S.....	West Virginia
Goldberg, Ben	New York	Rothfuss, Paul Arndt, B.S....	Pennsylvania
Gordon, Abraham S.....	New York	Ruche, Harry Charles.....	Pennsylvania
Grose, Robt. Glenn, A.B....	North Carolina	Saurborne, Sylvia Barnes, B.S.	West Virginia
Gutowski, Joseph Matthew, A.B.,	New Jersey	Schorr, Richard.....	New York
Haddock, Douglass Arno.....	Maine	Shealy, Walter Hal, A.B.....	South Carolina
Hagerman, Paul.....	West Virginia	Sherman, Louis.....	New York
Harp, J. Elmer.....	Maryland	Smith, Charles Franklin.....	Pennsylvania
Hirsch, Philip	New York	Snaith, Theresa Ora.....	West Virginia
Hundley, John T. T., Jr., A.B....	Virginia	Sowers, Roy Gerodd, A.B., B.S., M.A.	North Carolina
Hunt, William Bryce, A.B....	North Carolina	Steincrohn, Peter Joseph.....	Connecticut
Jennette, William Carl, A.B.,	North Carolina	Sussman, Abram Allen, D.D.S....	Maryland
Keith, Marion Yates.....	North Carolina	Touhey, T. Joseph.....	Delaware
Knipp, George Adam.....	Maryland	Walker, Wallace William, B.S.	West Virginia
Kraut, Arthur Milton.....	New Jersey	Wasserstrom, Sidney.....	New York
Kyper, Frederick T.....	Pennsylvania	Weinert, Henry Vincent.....	New Jersey
Lally, Leo Aloysius.....	Pennsylvania	Welton, William Archibald, B.S.	West Virginia
Long, Ira Clinton, A.B....	North Carolina	Werner, Walter Ignatius	Ohio
Love, William Samuel, Jr., A.B....	Maryland	White, James Franklin.....	West Virginia

THIRD YEAR CLASS.

Name	State	Name	State
Anderson, Albert Louis.....	Maryland	Briglia, Nicholas Natale.....	Pennsylvania
Anderson, Richard Speight.....	North Carolina	Caso, Jose'	Porto Rico
Antonius, Nicholas A.....	New Jersey	Clawson, Thomas Alfred, Jr., A.B....	Utah
Aycock, Thomas B., B.S....	North Carolina	Daughtridge, Arthur Lee....	North Carolina
Barnes, D. Keith.....	Utah	Davenport, Carlton Alderman	North Carolina
Beerman, Herman Marlin....	Pennsylvania	Edelman, Edward Isidor.....	New York
Bell, Roy Austin, B.S.....	West Virginia	Dean, Hugh Elmer.....	Utah
Berenfield, Simon, A.B....	North Carolina	Felger, Walter Blaine, A.B.....	Ohio
Best, DeLeon Edward, A.B....	North Carolina	Fields, Daniel Allen,.....	North Carolina
Boyd, Kenneth Bray.....	Maryland		

Name	State	Name	State
Finegold, Abraham.....	Pennsylvania	Moriarty, Louis	Connecticut
Fisher, Harry Richard.....	New York	Morris, Philip	New York
Flax, Ira Isador.....	New Jersey	Morrison, William Henry, Jr.....	Pennsylvania
Frehling, Joseph Morris.....	Kentucky	Motta, Peter George, B.S.....	Pennsylvania
Friedman, Bernard.....	New York	Neustaedter, Theodore.....	New York
Friedman, Irving.....	New Jersey	Nocera, Domingo	Porto Rico
Given, Arnold Jarrett, B.S.....	West Virginia	Norment, John Edwin, A.B.....	Maryland
Goff, John Trevy.....	West Virginia	Pachtman, Isadore	Pennsylvania
Golembe, Julius, B.S.....	New York	Parks, Walter Beatty.....	North Carolina
Granoff, Jerry Frank.....	New York	Perry, Archibald Howell.....	North Carolina
Greifinger, Marcus Harry.....	New Jersey	Pitkowsky, Louis K.....	New York
Grossblatt, Philip.....	New Jersey	Roberts, Bennett Watson.....	North Carolina
Howell, Clewell, B.S.....	North Carolina	Robertson, Edwin Mason.....	North Carolina
Jacobson, Philip	Maryland	Salvati, Leo Harry, B.S.....	West Virginia
Kafka, Maximilian Martyn, B.S.....	New York	Scagnetti, Albert.....	New York
Knox, Joseph Clyde.....	North Carolina	Scheindlinger, Morris I.....	Maryland
Koons, Earle Weant, B.S.....	Maryland	Schlenger, Leo B.....	New Jersey
Kratz, Fred William.....	Maryland	Schultz, Louis Ariel.....	New York
Leibensperger, Geo. Franklin	Pennsylvania	Scimeca, Antonio Adolfo.....	New York
Levine, Samuel.....	New Jersey	Schwab, Joseph Henry.....	New York
Marsh, James Tolley, A.B.....	Maryland	Seliger, Robert V.....	New York
Marton, Samuel	New York	Shapiro, Kalph.....	New York
Maseritz, Isadore	Maryland	Sherman, Maurice Aaron, B.S.	Pennsylvania
Maurillo, Dominick Francis, A.B.	New York	Siegel, Samuel, A.B.....	Ohio
McConnell, Harvey Russell, B.S.	South Carolina	Simpson, Henry Hardy, A.B.	North Carolina
McLane, Jr., William Oliver, B.S.	Maryland	Staeck, Felix Cecil, B.S.....	West Virginia
Megahan, Burke	Pennsylvania	Tabershaw, Arnold Leon	New York
Messinger, Benjamin	New York	Talbot, Richard Bosworth, B.S.	West Virginia
Miller, Benjamin	Maryland	Theuerkauf, Frank Joseph.....	Pennsylvania
Miller, Jacob M.	Maryland	Ward, Titus William, A.B.....	North Carolina
Miller, Jos. George	Maryland	Warren, Bryan Pope.....	North Carolina
Monroe, Clement Rosenberg	North Carolina	Weinstock, Alexander Abraham.....	New York
Montani, Anthony Carmen, B.S.*.....	Ohio	Whaley, Thomas Bravard.....	Maryland
		Winstead, John Lindsay.....	North Carolina
		Zaslow, John.....	New York

*Did not complete course

SECOND YEAR CLASS.

Name	State	Name	State
Arrack, Pedro.....	Porto Rico	Dreskin, Jacob Louis.....	New Jersey
Balcerzak, Stanley Paul.....	Pennsylvania	Dwyer, Daniel Raymond, A.B.....	Connecticut
Bentz, Felix John	Connecticut	Eastland, John Sheldon, A.B.....	New York
Bizub, Emil Nicholas.....	New Jersey	Elgin, Lee William	Maryland
Brown, Leo T.....	District of Columbia	Ellis, Francis Alva, A.B.....	Maryland
Cadle, Wm. Rodman.....	Maryland	Epstein, Harry Herman.....	New York
Cardinale, Pasquale F.....	New Jersey	Everett, Franklin Redman.....	Maryland
Cassidy, John Joseph, B.S.....	Delaware	Fancher, Henry Wilson, Jr.....	Connecticut
Claahr, Abraham Albert.....	New York	Farber, Rapheal	Pennsylvania
Coe, John Marbury	Maryland	Fields, Abijah Clements.....	Alabama
Coonan, Thomas Joseph, A.B.....	Maryland	Fine, Morris A.....	Maryland
Cope, Arthur Alexander, A.B.....	Pennsylvania	Fischman, Harold H.....	New Jersey
DeVincentis, Henry*.....	New Jersey	Fishof, Frank	New York
Donohoe, Edward Cyril.....	Pennsylvania	Fuchs, Abner M.....	New York
Draper, Leonidas McFerrin, A.B.	North Carolina	Gale, Louis Harry	Pennsylvania
		Gaston, William Bryan.....	West Virginia

Name	State	Name	State
Gattens, Wilber Elton, B.S.....	Maryland	Nock, Randolph Maxwell	Maryland
Glick, Samuel, A.B.....	Maryland	Orton, Lyman Ross.....	Maryland
Grandfield, Robert Francis*....	Massachusetts	Oshrin, Henry.....	New Jersey
Grimm Wilson Osborne*.....	West Virginia	Ottenberg, Gilbert, A.B.	
Herbert, Alpha Nathan.....	New Jersey		District of Columbia
Hertz, Ben	New York	Pierce, James Lewis*.....	Florida
Hibbitts, John Thomas*.....	Maryland	Pinsky, Myer Mordecai.....	New Jersey
Hulla, Jaroslav	Maryland	Plassnig, Edwin, B.S.....	Maryland
Jacobs, Morris Albert.....	Maryland	Polizzotti, Joseph Louis.....	New Jersey
Keating, John Patrick.....	Connecticut	Poplack, Samuel Lewis.....	Connecticut
Kelley, Edward Burke.....	Pennsylvania	Pulaski, Leo Edward.....	Pennsylvania
Knotts, William Kenneth.....	Maryland	Rathsprecher, Isadore.....	New Jersey
Lalley, Paul Francis.....	Pennsylvania	Rodriguez, Rafael Molina.....	Porto Rico
Laus, Edward Raymond.....	New York	Rosenstein, Jack.....	New York
Linde, S. Arthur.....	Maryland	Sarnoff, Jack.....	New York
London, Daniel	New York	Schachter, Eugene Joel.....	Pennsylvania
Lowe, Claude Milton	Pennsylvania	Seiken, George.....	New York
Metzky, Joseph	New Jersey	Silverstein, Jacob Maurice.....	New Jersey
Miller, Edgar Raymond, A.B.		Simon, Joseph Ralph.....	Pennsylvania
	Pennsylvania	Sinton, William Allen.....	Virginia
Minnefor, Chas. Anthony.....	New Jersey	Straka, Robert Paul*.....	Pennsylvania
Morales, Jaime Vila.....	Porto Rico	Sulman, William	Pennsylvania
Mullenusky, Joseph John	Pennsylvania	Tomaiaoli, Michael Francis.....	New Jersey
Muncy, John W.....	West Virginia	Turner, Thomas Bourne, B.S....	Maryland
Nataro, Joseph	New Jersey	Visconti, Joseph Albert.....	New Jersey
Navarro, Vicente Aquirre, A.B.		Wassersweig, Martin Max.....	Pennsylvania
	Philippine Islands	Weintraub, Harry	Maryland
Nelson, James Wharton, A.B....	Maryland	Wiener, Joseph	New York
Nimarrow, Meyer.....	New Jersey	Zimmermann, Charles Conrad...	Maryland

*Did not complete the year

FIRST YEAR CLASS.

Name	State	Name	State
Levin, Joseph.....	New Jersey	Eanet, Paul.....	District of Columbia
Alperin, Benjamin.....	New York	Edmonds, Charles William.....	Maryland
Anker, Harry	New York	Efron, Bernard Gelfond.....	Maryland
Askin, Aaron John.....	Maryland	Feemster, Olive Swagerty.....	Maryland
Baker, Norman Ware*.....	Maryland	Feldman, Solomon Charles	Maryland
Ballard, Maggie Byrnside...West	Virginia	Finkelstein, Abraham Harry...	New York
Barranco, Salvatore Humbert...	Maryland	Freedman, Herman.....	New Jersey
Beachley, Jack Henson.....	Maryland	Max Freedman.....	New Jersey
Beaumont, Horace Vernon..North	Carolina	Freuder, Arthur Nathan.....	New York
Bennett, L. H.....	Ohio	Gahan, Emanuel.....	New York
Bloch, Adolph.....	New Jersey	Gerber, Isadore	Maryland
Bronstein, Irving	New York	Gomez, Pedro Jose*.....	Nicaragua
Buccieri, Samuel Frank*.....	Pennsylvania	Gordon, Abel	New Jersey
Campbell, Brice*	Ohio	Graham, Kenneth Leo*.....	Maryland
Castagna, Joseph V.....	Maryland	Gulck, Georg Krohn.....	Denmark
Castronovo, Joseph	Rhode Island	Hecht, Lawrence Weis	Maryland
Clemson, Earle Princeton.....	Maryland	Helfond, David Mathew.....	New York
Cohen, Morris	Maryland	Hyman, Calvin	Maryland
Coniff, Arthur A.....	Maryland	Jensen, Jacob Roed.....	Denmark
Connell, A. J.....	Pennsylvania	Jolson, Meyer Stanley	Maryland
D'Angelo, Antonio Francesco..Rhode	Island	Karns, Clyde Filmore.....	Maryland
Davis, Henry Vincent.....	Maryland	Knapp, Alphonse Joseph.....	Pennsylvania
Diamond, H. Elias.....	New York	Kralikauckas, Joseph	New Jersey
DiPaula, Frank Rosario.....	Maryland	Lavy, Louis Theodore.....	Maryland
DiPaula, Samuel Rogers.....	Maryland	Levanovich, Charles James*....	Maryland

Name	State	Name	State
Levin, H. Edmund.....	Maryland	Rosenberg, Albert Abraham.....	Pennsylvania
Lista, Louis Joseph*.....	West Virginia	Rosenfeld, Max Harry.....	Maryland
Lumpkin, Lloyd Uber.....	Maryland	Rothberg, Abraham S.....	New York
Lusby, Frank Farrier.....	Maryland	Sashin, David.....	New York
Manginelli, Emanuel.....	New York	Sax, Benjamin J.....	New York
Martino, George Caprio	New Jersey	Schenker, Paul	Maryland
Matassa, Vincent Louis.....	Maryland	Schmukler, Jacob	New Jersey
Mattikow, Bernard.....	New York	Schneider, David	Maryland
Merva, Andrew Joseph*.....	Pennsylvania	Schuman, William	Maryland
Meys, George Adam, Jr.*.....	Maryland	Schwartz, Ralph Alfred.....	New Jersey
Miller, Harry.....	New York	Shank, Lonis Warren*.....	Maryland
Misenheimer, Ed. Alexander	North Carolina	Shortess, George Seidel*	Maryland
Moriconi, Albert Francis.....	New Jersey	Sherman, Elizabeth Bowman.....	Virginia
Nanigian, Elizabeth*	Massachusetts	Smith, Jesse Earnest.....	Maryland
Nanigian, Mary*	Massachusetts	Smith, Paul L.....	Pennsylvania
Naylor, Singleton Towshend.....	Maryland	Spano, Frank	New Jersey
Newman Richard Delamarter.....	Maryland	Susser, Max Herman.....	New Jersey
Normeud, Clinton Crawford.....	Maryland	Tayntor, Lewis Olds.....	Maryland
O'Boyle, Thomas Joseph.....	Pennsylvania	Taub, Samuel.....	New York
Plitt, Freida Ruth*.....	Maryland	Teitelbaum, Maurice L.....	New York
Polvue, William Clewell.....	West Virginia	Tenaglia, Entimio Domenico.....	Rhode Island
Radest, Louis Jack.....	New York	Thompson, Thomas Payne.....	Maryland
Rattenni, Arthur.....	Rhode Island	Tobias, Herbert Ramsay.....	Maryland
Reifschneider, Herbert	Maryland	Totterdale, William Grainger.....	Maryland
Rex, Elmer Galen.....	Ohio	Weinstein, Samuel.....	New Jersey
Roberts, William Francis*.....	Connecticut	Weiss, Louis, Leo.....	New York
Robertson, Harold Seth.....	Massachusetts	Weseley, Louis Jerome.....	New York
Rocco, Frank.....	New Jersey	Winkler, Morris*	Pennsylvania
Roseman, Ned.....	New York	Wolfe, Samuel Benjamin.....	Maryland

*Did not complete the course

GENERAL SUMMARY OF STUDENTS ATTENDING THE UNIVERSITY OF MARYLAND, SESSION OF 1922-1923.

College of Home Economics.....	16
College of Agriculture.....	274
College of Engineering.....	181
College of Arts and Sciences.....	271
College of Education.....	196
The Graduate School.....	52
The Summer School, 1922.....	446
School of Medicine.....	336
School of Law.....	563
School of Dentistry.....	258
School of Pharmacy.....	145
Extension Courses in Commerce.....	510
School of Nurses.....	98
Total.....	3,346

GRADUATES, UNIVERSITY OF MARYLAND SCHOOL OF
MEDICINE AND COLLEGE OF PHYSICIANS
AND SURGEONS, JUNE 9, 1923.

Name	State	Name	State
Beck, Nathaniel Monroe, A.B.		McLean, Herbert, A.B.	New Jersey
	Maryland	Moler, Raleigh Miller, B.S.	
Belenky, Jacob	New York		West Virginia
Bowers, Thaddeus Ray, Jr., A.B.		Murray, Robert L., B.S.	
	North Carolina		North Carolina
Dart, Frederick Bond	Connecticut	Myers, Karl Johnson, B.S.	
Desane, Joseph	New York		West Virginia
Edmonds, John Milton	Michigan	Newcomer, David R., B.S.	Maryland
Fleshman, Dewey Lynwood, B.S.		Povalski, Alexander William,	
	West Virginia		New Jersey
Giffin, Theodore C., B.S.		Prather, Fonzo Goff, B.S.	West Virginia
	West Virginia	Roahfuss, Paul Arndt, B.S.	
Goldberg, Ben	New York		Pennsylvania
Gordon, Abraham S.	New York	Ruthe, Harry Charles	Pennsylvania
Gutowski, Joseph M.	New Jersey	Schorr, Richard	New York
Haddock, Douglass Arno	Maine	Shealy, Walter Hal, A.B.	S. Carolina
Hagerman, Paul	West Virginia	Sherman, Louis	New York
Harp, J. Elmer	Maryland	Smith, Chas. Franklin	Pennsylvania
Hirsch, Philip	New York	Snaith, Theresa Ora	West Virginia
Hundley, John T. T. Jr., A.B.	Virginia	Sowers, Roy Gerodd, A.B., B.S., M.A.	
Hunt, William Bryce, A.B.			North Carolina
	North Carolina	Steincrohn, Peter Joseph	Connecticut
Jennette, William Carl, A.B.		Sussman, Abram Allen, D.D.S.	
	North Carolina		Maryland
Keith, Marion Yates	North Carolina	Touhey, T. Joseph	Delaware
Knipp, George Adam	Maryland	Walker, Wallace William, B.S.	
Kraut, Arthur Milton	New Jersey		West Virginia
Kyper, Fred T	Pennsylvania	Wasserstrom, Sidney	New York
Lally, Leo Aloysius	Pennsylvania	Weinert, Henry Vincent	New Jersey
Long, Ira Clinton	North Carolina	Welton, William Archibald, B.S.	
Love, William Samuel, Jr., A.B.			West Virginia
	Maryland	Werner, Walter Ignatius	Ohio
McCullough, Carlton S. L., B.S.		White, James Franklin, B.S.	
	Pennsylvania		West Virginia

Prizemen

University Prize—Gold Medal	Henry Vincent Weinert
Certificate of Honor	Joseph M. Gutowski
Certificate of Honor	George Adam Knipp
Certificate of Honor	Frederick Bond Dart
Certificate of Honor	David R. Newcomer
Certificate of Honor	Alexander William Povalski
Certificate of Honor	William S. Love, Jr.

In the third year the Dr. Jose L. Hirsch Memorial Prize of \$50.00 was awarded to Antonio Adolfo Scimeca for the best work in Pathology during the second and third years.

Elias Gordon B.S., of Pennsylvania, a member of the class of 1922, was graduated September 1, 1922.

THE UNIVERSITY OF MARYLAND

SCHOOL OF MEDICINE

AND

COLLEGE OF PHYSICIANS AND SURGEONS.

As a result of the merger accomplished in 1915 the combined schools offer the student the abundant resources of both institutions, and, in addition, by earlier combination with the Baltimore Medical College, the entire equipment of three large medical colleges.

The School of Medicine of the University of Maryland is one of the oldest foundations for medical education in America, ranking fifth in point of age among the medical colleges of the United States. It was chartered in 1807, under the name of the College of Medicine of Maryland, and its first class was graduated in 1810. In 1812 the College was empowered by the Legislature to annex three other colleges or faculties, of Divinity, of Law, and of Arts and Sciences, and the four colleges thus united were "constituted an University by the name and under the title of the University of Maryland."

Established thus for more than a century, the School of Medicine of the University of Maryland has always been a leading medical college, especially prominent in the South and widely known and highly honored throughout the country.

The beautiful college building at Lombard and Greene Streets, erected in 1814-1815, is the oldest structure in America devoted to medical teaching. Here was founded one of the first medical libraries and the first medical college library in the United States.

Here for the first time in America dissecting was made a compulsory part of the curriculum; here instruction in Dentistry was first given (1837), and here were first installed independent chairs for the teaching of Diseases of Women and Children (1867) and of Eye and Ear Diseases (1873).

The School of Medicine was one of the first to provide for adequate clinical instruction by the erection in 1823 of its own hospital, and in this hospital intramural residency for the senior student was first established.

In 1913, juncture was brought about with the Baltimore Medical College, an institution of 32 years' growth. By this association the facilities of the School of Medicine were enlarged in faculty, equipment and hospital connection.

The College of Physicians and Surgeons was incorporated under the Legislative enactment in 1872, and established on Hanover Street in a building afterwards known as the Maternite, the first obstetrical hospital in Maryland. In 1878 union was affected with the Washington University School of Medicine, in existence since 1827, and the College was removed to its present location at Calvert and Saratoga Streets. By this arrangement medical control of the City Hospital, now the Mercy Hospital, was obtained, and on this foundation in 1899 the present admirable college building was erected.

CLINICAL FACILITIES.

HOSPITALS AND DISPENSARIES.

UNIVERSITY HOSPITAL.

The University Hospital, which is the property of the University of Maryland is the oldest institution for the care of the sick in the State of Maryland. It was opened in September, 1823, under the name of the Baltimore Infirmary, and at that time consisted of but four wards, one of which was reserved for eye cases. By successive additions this hospital was increased to more than fourfold its original accommodations, there being added to it a large clinical amphitheatre, a students' building for the accommodation of the thirty clinical assistants, and a nurses' building for the accommodation of the pupils of the Training School for Nurses. The yearly increase in the number of patients seeking admission to the hospital, however, more than kept pace with the increase in accommodations, and the Faculty therefore erected an entirely new and modern hospital of fully double the capacity of the former building.

The University Hospital is constructed of brick and Tennessee limestone in the Colonial style of architecture, fronting 175 feet upon Lombard Street, and about the same on Greene Street. It is supplied with the most modern and improved system of heating, ventilation, etc., and equipped with all modern requirements and conveniences for the care of the sick, and for the clinical instruction of the students of the University.

The hospital is situated opposite the Medical School buildings so that the students lose no time in passing from the lecture halls and laboratories to the clinical amphitheatre, dispensary and wards. It is owned by the University and the clinical material controlled entirely by the Faculty of the Medical School.

An important adjunct to the hospital is the postmortem building which is constructed with special reference to the instruction of students in pathological anatomy.

A portion of the hospital is used as a marine hospital for foreign seamen. The great importance of Baltimore as a shipping point brings into her harbor many vessels from all parts of the world, and the sick sailors who are cared for in the wards of the institution give the students an opportunity to observe a large variety of diseases. Another considerable portion of the building is used as a Municipal Hospital, and contains charity beds supported by the City of Baltimore. This department of the hospital is taxed to its utmost capacity to afford accommodations for the patients seeking admission.

Owing to its location, being the nearest hospital to the largest manufacturing district of the city, the University Hospital receives for treatment a very large number of accident cases of all kinds, both slight and serious. These cases, as well as patients suffering from the various diseases of our own climate, occupy the beds, and add greatly to the facilities of clinical teaching enjoyed by the school. The facilities for clinical instruction have been greatly enlarged by an appropriation by the State of Maryland for the support of free beds for patients from the various counties.

MERCY HOSPITAL.

The Sisters of Mercy first assumed charge of the Hospital at the corner of Calvert and Saratoga Streets, then owned by the Washington University, in 1875. By the merger of 1878 the Hospital came under the control of the College of Physicians and Surgeons, but the Sisters continued their work of administering to the patients.

In a very few years it became apparent that the City Hospital as it was then called, was much too small to accommodate the rapidly growing demands upon it. However, it was not until 1888 that the Sisters of Mercy, with the assistance of the Faculty of the College of Physicians and Surgeons, were able to lay the

cornerstone of the present Hospital. This building was completed and occupied late in 1889. Since then the growing demands for more space has compelled the erection of additions, until now there are accommodations for 351 patients.

In 1909 the name was changed from The Baltimore City Hospital to Mercy Hospital.

Mercy Hospital is located in the center of a city of 750,000 inhabitants.

The clinical material in the free wards is under the exclusive control of the Faculty of the University of Maryland School of Medicine and College of Physicians and Surgeons.

It adjoins the College building, and all surgical patients from the public wards are operated upon in the College operating rooms. This union of the Hospital and College buildings greatly facilitates the clinical teaching, as there is no time lost in passing from one to the other.

Mercy Hospital is the hospital of the United Railways and Electric Company of Baltimore City, and receives patients from the Baltimore and Ohio Railroad Company and from the Pennsylvania Railroad Company and its branches.

LYING-IN HOSPITALS.

MATERNITY HOSPITAL OF THE UNIVERSITY OF MARYLAND.

This institution is also the property of the University, and under its exclusive control and direction, and is conducted with the special purpose of furnishing actual obstetrical experience to each member of the graduating class.

New accommodations have been provided in the general hospital, and the Maternity Department now offers better facilities than ever before, while the large increase in clinical material had made it possible to offer excellent opportunities for post-graduate work.

THE WEST END MATERNITY.

The West End Maternity adjoins the Franklin Square Hospital and furnishes an abundance of clinical material, which is under the control of the Board of Instruction.

OUT-PATIENT CLINIC AND DISPENSARY.

In connection with the University Hospital an out-door obstetrical clinic is conducted, in which every case has careful prenatal

supervision, is attended during labor by a graduate physician and graduate nurse—one senior student also being present—and is visited during the puerperium by the attending student and graduate nurse. Careful prenatal, labor and puerperal records are kept, making this work of extreme value to the medical student, not only from the obstetrical standpoint, but in making him appreciate the value of social service and public health work.

NUMBER OF PATIENTS.

During the year ending December 31, 1921, the number of patients treated in the Lying-In hospitals connected with the School was as follows:

Number of Confinements in Hospitals	490
Number of Confinements Out-Patient Department	754
Average number of cases seen by each student of the graduating class....	15

THE MUNICIPAL HOSPITALS—BAY VIEW.

The clinical advantages of the University have been largely increased by the liberal decision of the Board of Supervisors of City Charities to allow the immense material of these hospitals to be used for the purpose of medical education. There are daily visits and clinics in medicine and surgery by the Staff of the Hospitals. The autopsy material is unsurpassed in this country in amount, thoroughness in study, and the use made of it in medical teaching.

The Municipal Hospitals consist of the following separate hospitals:

The General Hospital, 160 beds.

The Hospital for Chronic Cases, 88 beds.

The Municipal Hospital for Tuberculosis, 190 beds.

City Detention Hospital for Insane, 450 beds.

THE JAMES LAWRENCE KERNAN HOSPITAL AND INDUSTRIAL SCHOOL OF MARYLAND FOR CRIPPLED CHILDREN.

This institution contains seventy-five beds for the active treatment of deformities. It is situated at "Radnor Park," a colonial estate of seventy-five acres at Hillsdale, within the western city limits, reached by trolley.

This institution has city, state, endowed and private beds and every modern facility for the treatment of orthopedic cases as

well as a most beautiful park-like environment and farm, and is closely affiliated with the University of Maryland, for bed-side instruction.

ST. VINCENT'S INFANT ASYLUM.

The facilities of this institution, containing 250 infants and children, have been kindly extended to the University of Maryland by the Sisters of Charity. This large clinic enables this school to present to its students liberal opportunities for the study of diseases of infants and children.

INSTITUTIONS FOR THE TREATMENT OF THE INSANE AND FEEBLE-MINDED.

THE SHEPPARD AND ENOCH PRATT HOSPITAL FOR THE INSANE. This institution is one of the most modern hospitals for the treatment and care of the insane in this country. It is well endowed and its superintendent is R. M. Chapman, M. D., Professor of Psychiatry at the University of Maryland. In this hospital intensive treatment and study of mental diseases is carried on, a large number of the patients entering voluntarily. The students under the direction of Dr. Chapman and his assistants in a series of clinics are shown the early manifestations and the various stages of mental diseases, the methods of treatment, and their effects.

SPRING GROVE HOSPITAL. Through the courtesy of the Superintendent of this institution, the Professor of Psychiatry is enabled to present to the weekly clinics to the fourth year class the different types of psychoses and psycho-neuroses.

DISPENSARIES.

The dispensaries associated with the University Hospital and the Mercy Hospital are organized upon a uniform plan in order that the teaching may be the same in each. Each dispensary has the following departments: Medicine, Surgery, Children, Eye and Ear, Genito-Urinary, Gynecology, Gastro-Enterology, Neurology, Orthopedics, Proctology, Dermatology, Throat and Nose, Tuberculosis and Psychiatry.

All students in their junior year work in the departments of Medicine and Surgery each day in one of the dispensaries.

All students in their senior year work in the special departments one hour each day.

Some idea of the value of these dispensaries for clinical teaching is shown by the number of patients treated. For the year

1921 about eighty-four thousand visits were made to the dispensaries.

In addition to these the Dental Department, situated upon the grounds of the University, conducts a daily clinic which is open to medical students.

UNIVERSITY HOSPITAL.

Dispensary Report January 1, 1922 to December 31, 1922

<i>Department</i>	<i>New Cases</i>	<i>Old Cases</i>	<i>Total</i>
Pediatrics	2,155	13,117	15,272
Dermatology	2,755	4,944	7,699
Medical	1,244	4,139	5,383
Obstetrics	1,399	3,944	5,343
Genito-Urinary	708	4,308	5,016
Surgical	1,374	3,572	4,946
Ophthalmology	1,465	3,400	4,865
Gynecology	1,076	2,079	3,155
Orthopedics	218	1,846	2,064
Laryngology	700	920	1,620
Neurology	197	1,235	1,432
Gastro-Enterology	171	786	957
Tuberculosis	147	223	370
Proctology	72	114	186
Psychiatric	59	100	159
	<hr/> 13,740	<hr/> 44,777	<hr/> 58,517

Mercy Hospital Dispensary Report, January 1 to December 31, 1922.

Sister M. Helen, Directress.

<i>Dispensary Clinics</i>	<i>New Cases</i>	<i>Old Cases</i>	<i>Total</i>
Surgical	686	1,933	2,619
Medical	756	953	1,712
Gynecological	290	1,020	1,311
Eye and Ear	344	771	1,115
Nose and Throat	527	664	1,191
Neurological	132	538	670
Pediatric	93	111	204
Gastro-Intestinal	211	773	984
Dental	70	112	182
Proctological	24	44	68
Orthopedic	95	480	575
Dermatological	185	554	739
Genito-Urinary Surgery	1,681	17,910	19,591
<i>Total</i>	<hr/> 5,094	<hr/> 25,866	<hr/> 30,960

ANATOMICAL LABORATORIES.

These laboratories are in charge of the Professor of Anatomy and his assistants. The University has recently built its own storage and embalming plant, which supplies an abundance of anatomical material. Anatomical material is furnished free of charge.

LABORATORY OF EXPERIMENTAL PHYSIOLOGY.

This laboratory occupies the first floor of Gray Laboratory; it includes a large student laboratory, with capacity of forty students, a room completely equipped for mammalian experimentation, a stock-room, and an office for the professor in charge. Within the same building there is an animal room in which there is kept a constant supply of material for experimentation and demonstration. The laboratory is equipped with ample apparatus: there is a complete set of student apparatus available for each group of two students, while the special apparatus for laboratory experimentation and class-room demonstration is adequate for the needs of the course.

LABORATORY OF BIOLOGICAL CHEMISTRY.

(See page 50.)

LABORATORY OF HISTOLOGY AND EMBRYOLOGY.

This laboratory is fully equipped for teaching Histology and Embryology.

There is a large collection of charts, specimens and apparatus used in teaching. The necessary equipment for the practice of technique is provided.

LABORATORIES OF PATHOLOGY AND BACTERIOLOGY.

The subject of bacteriology is taught during the second semester of the first year in a well equipped laboratory. See Department of Bacteriology and Immunology for a detailed account of work in this branch.

The subject of histopathology is also taught during the second year in a properly equipped laboratory. The details concerning this work are described under the subject of Department of Pathology and Bacteriology.

The instruction in gross pathology is obtained during the third year by attendance upon the autopsies at the University Hospital and the Mercy Hospital. Special instruction in this subject is also given by demonstrations with a large amount of pathological

material at the City Hospitals situated at Bay View. The subject of gross pathology is also taught in the third year by means of lectures and demonstrations, and a special effort is made to apply this subject to the explanation of the symptoms and clinical signs of disease. The instruction in autopsy technique is also given personally to small groups of students.

LABORATORIES OF CLINICAL PATHOLOGY.

These laboratories are fully equipped for the study of practical laboratory work in its relationship to clinical medicine. Each student is supplied with a locker, containing sufficient apparatus for any ordinary examination.

The wards and out-patient departments of the hospital furnish an abundance of material for study.

By reason of individual equipment, much work outside of class hours is expected of the student.

The class rooms are adequately lighted, and are conveniently situated for teaching purposes.

LIBRARIES.

The University Library, founded in 1813 by the purchase of the collection of Dr. John Crawford, now contains 14,906 volumes, a file of 50 current journals, and several thousand pamphlets and reprints. During the year ending December 31, 1921, 296 volumes were added. It is well stocked with recent literature, including books and periodicals of general interest. The home of the Library is Davidge Hall, a comfortable and commodious building in close proximity to the class rooms and the Laboratories of the Medical Department. The Library is open daily during the year, except in August, for use of members of the Faculty, the students, and the profession generally.

The Library of the Medical and Chirurgical Faculty of Maryland, containing many thousands of volumes, is open to the students of the school. The leading medical publications of the world are received by the library and complete sets of many journals are available. Other Libraries of Baltimore are the Peabody (181,000 volumes) and the Enoch Pratt Free Library (355,817 volumes).

All these libraries are open to the students of the school without charge.

The proximity of Washington places the immense libraries of the national capital at the disposal of the students of the school.

ANNUAL APPOINTMENTS.

On February first of each session the following annual appointments are made from among the graduates of the school:

TO THE UNIVERSITY HOSPITAL

Seven Senior Residents, viz:
Two Resident Surgeons.
Two Resident Physicians.
One Resident Gynecologist.
One Resident Obstetrician.
One Resident Pathologist.
Thirteen Junior Residents on a rotating service.

A number of students are appointed each year, at the close of the session, as Clinical Assistants in the University Hospital for the summer months.

TO THE MERCY HOSPITAL

Chief Resident Physician.
Three Resident Surgeons.
One Resident Physician.
One Resident Gynecologist.
One Resident Obstetrician.
Eight Junior Residents on a Rotating Service.

REQUIREMENTS FOR MATRICULATION.

Admission to the course in medicine is by a completed Medical Student Certificate issued by the Registrar of the University of Maryland. This certificate is obtained from the Registrar on the basis of satisfactory credentials, or by examination and credentials, and is essential for admission to any class.

The requirements for the issuance of the Medical Student Certificate are:

- (a) The completion of a standard four-year high school course or the equivalent, and in addition,
- (b) Two years or sixty semester hours of college credits, including chemistry, biology, physics, and English.

Women are admitted to the Medical Department of this University.

(A) DETAILS OF THE HIGH SCHOOL REQUIREMENTS.

- 1. Graduation from an accredited high school after pursuing a four-year course based upon an eight-year elementary course or its full equivalent, or
- 2. Successfully passing entrance examinations in the following subjects:

(a) *Required Eleven (11) Units.*

English, 4 years.....	3
Elementary and Intermediate Algebra.....	1
Plane Geometry (first five books).....	1
Two years of a foreign language.....	2
Two of the three sciences—Biology, Chemistry, Physics.....	2
American History and Civics.....	1
Ancient History or English History.....	1

(b) *Electives, Four (4) Units.*

(1) History and Political Science:	
Ancient History or English History.....	1
Mediaeval and Modern History.....	1 or $\frac{1}{2}$
General History.....	1 or $\frac{1}{2}$
Civics.....	$\frac{1}{2}$
Economics.....	$\frac{1}{2}$
(2) Language:	
French 2 years.....	2
German 2 years.....	2
Greek 2 years.....	2
Hebrew 2 years.....	2
Italian 2 years.....	2
Latin 2 years.....	2
Spanish 2 years.....	2
(3) Mathematics:	
Advanced Arithmetic.....	$\frac{1}{2}$
Advanced Algebra.....	1
Plane Trigonometry.....	$\frac{1}{2}$
Solid Geometry.....	$\frac{1}{2}$
(4) Science:	
Physics, Biology or Chemistry.....	1
Physical Geography and Geology.....	1
Astronomy.....	$\frac{1}{2}$
Physiology and Hygiene.....	$\frac{1}{2}$
(5) Vocational and cultural subjects:	
Agriculture.....	1
Bookkeeping.....	1
Commercial Geography.....	$\frac{1}{2}$
Domestic Science.....	1
Drawing { Mechanical 1 and 2.....	each $\frac{1}{2}$
Freehand 1 and 2.....	each $\frac{1}{2}$
Manual Training.....	1
Music.....	1
Stenography.....	1 or 2

One unit in any subject is the equivalent of the work in that subject for five periods per week for a year of at least thirty-six weeks, periods to be not less than forty-five minutes in length. One unit is equivalent to 2 semester credits or two points.

(B) DETAILS OF THE COLLEGE REQUIREMENT.

a. The preliminary college course shall extend through two college sessions of at least thirty-two weeks each of actual instruction, including final examinations.

b. In excellence of teaching and in content, the work of this preliminary college course shall be equal to the work done in the freshman and sophomore years in standard colleges and universities.

c. This preliminary college course shall include courses in physics, chemistry, biology, and English, each course to embrace at least six, eight or twelve hours of work in each subject, as shown in the schedule following.

SCHEDULE OF SUBJECTS OF THE TWO-YEAR
PRE-MEDICAL COLLEGE COURSE.

Sixty Semester Hours Required

REQUIRED COURSES:	<i>Semester Hours</i>
Chemistry (a).....	12
Physics (b).....	8
Biology (c).....	8
English Composition and Literature (d).....	6
COURSES STRONGLY URGED:	
A modern foreign language.	
Comparative vertebrate anatomy.	
Psychology.	
Social science.	

A semester hour is the credit value of sixteen weeks' work consisting of one lecture or recitation period per week, each period to be of not less than fifty minutes' duration net, at least two hours of laboratory work to be considered as the equivalent of one lecture or recitation period.

(a) CHEMISTRY. Twelve semester hours required, of which at least eight semester hours must be in general inorganic chemistry, including four semester hours of laboratory work. In the interpretation of this rule, work in qualitative analysis may be counted as general inorganic chemistry. The remaining four semester hours required shall consist of work in organic chemistry.

(b) PHYSICS. Eight semester hours required, of which at least two must be laboratory work. This course presupposes a knowledge of plane trigonometry.

(c) BIOLOGY. Eight semester hours required, of which four must be laboratory work. This requirement may be satisfied by a course of eight semester hours in either general biology or zoology, or by courses of four semester hours each in zoology and

botany, but not by botany alone. The requirement may be satisfied also by six semester hours of college biology, including three semester hours in laboratory work, if preceded by a year (one unit) of high school biology.

(d) **ENGLISH COMPOSITION AND LITERATURE.** The usual introductory college course of six semester hours, or its equivalent, is required.

POST-GRADUATE STUDENTS.

Graduates in medicine desiring to take the work of the senior year without being candidates for the degree and, therefore, without examination, may receive a certificate of attendance on completing the full course satisfactorily.

The requirements for graduates in medicine admitted to the fourth year class as candidates for the degree of Doctor of Medicine are the same as those enforced against undergraduates admitted to advanced standing.

Summer Post-Graduate Courses—In the April number of the Bulletin detailed announcement will be made of the Post-graduate Summer Courses.

COMBINED COURSE IN ARTS AND MEDICINE.

The students who have completed the junior year in our School of Liberal Arts and who have made an approved choice of electives may, if they desire, do the entire work of the senior year in the medical school of the University. If they successfully complete the work of the first medical year they are graduated with their class with the degree of Bachelor of Arts.

By taking advantage of this privilege a man may complete the Undergraduate and Medical courses in seven years.

During three of these years, or until he has completed the work of the junior class, he is a resident student in the School of Liberal Arts at College Park, Maryland, and for four years he is a student in the Medical School in Baltimore.

At the end of the fourth year he receives the A. B. degree, and at the end of the seventh year the M. D. degree, but credit from the Medical School cannot be accepted in subjects for which credit has already been given in the School of Liberal Arts.

The same privilege is allowed students of St. John's College, Annapolis, Maryland.

Special premedical courses have been arranged in our School of Liberal Arts at College Park and also by St. John's College at Annapolis.

RULES.

1. All students are required to take the spring examinations unless excused by the Dean. No student will be permitted to advance from a lower to a higher class with conditions.

2. Should a student be required to repeat any year in the course he must pay regular fees.

3. A student failing in final examinations for graduation at the end of the fourth year will be required to repeat the entire course of the fourth year and to take examinations in such other branches as may be required, should he be again permitted to enter the school as a candidate for graduation.

4. The general fitness of a candidate for graduation will be taken into consideration by the Faculty as well as the results of his examinations.

5. All first-year students entering the Medical School of the University of Maryland are required to provide themselves with microscopes of a type satisfactory to the Dean's Office.

A standard microscope of either Bausch & Lomb, Leitz, Spencer Lens or Zeiss make, fitted with the following attachments, will fill the requirements:-

- Triple nose piece.
- Wide aperture stage.
- Quick screw condenser (Abbe).
- 10 x and 5 x Oculars.
- 16mm. and 4mm. Objectives.
- 1.9 mm. 1.25 N.A. Oil Immersion Lens.

All the above rules, as well as the fees stated below, relate to the year ending June 7, 1924, only. The right is reserved to make changes in the curriculum, requirements for graduation, fees and any of the regulations whenever the Faculty deem it expedient.

FEES.

Matriculation fee (paid each year).....	\$5.00
Tuition fee (each year) for residents of Maryland.....	250.00
Tuition fee (each year) for non-residents.....	300.00
Breakage fee(each year).....	10.00
Special and re-examination fee.....	5.00

No fees are returnable, except unused portion of breakage fee.

The above fees apply to all students who matriculate in this institution in any class for the session beginning October 1, 1923.

All students, after proper certification, are required to register at the Registrar's office. The last date of registration is October second.

Matriculation, breakage and tuition for the first semester shall be paid at the time of registration, and for the second semester on or before February 1, 1924.

Failure to meet these conditions will automatically debar the student from attendance on classes and other privileges of the University.

FACULTY PRIZE.

To stimulate study among the candidates for graduation, the Faculty offers a Gold Medal to the candidate who passes the best general examination. Certificates of Honor are awarded to the five candidates standing next highest.

DR. JOSE L. HIRSCH MEMORIAL PRIZE.

A prize of \$50.00 is given each year by Mrs. Jose L. Hirsch as a memorial to the late Dr. Jose L. Hirsch, formerly Professor of Pathology in this School, to the student in the third year who has done the most satisfactory work in Pathology during his second and third years.

SCHOLARSHIPS.

The Dr. Samuel Leon Frank Scholarship.

(Value, \$125.00)

This scholarship was established by Mrs. Bertha Rayner Frank as a memorial to the late Dr. Samuel Leon Frank, an alumnus of this University.

It is awarded by the Trustees of the Endowment Fund of the University each year upon nomination by the Medical Council, "to a medical student of the University of Maryland, who, in the judgment of said Faculty, is of good character and in need of pecuniary assistance to continue his medical course."

This scholarship is awarded to a second, third or fourth year student only, who has successfully completed one year's work in the medical course, and no student may hold such scholarship for more than two years.

The Charles M. Hitchcock Scholarships.

(Value, \$125.00 each)

Two scholarships were established from a bequest to the School of Medicine by the late Charles M. Hitchcock, M. D., an alumnus of the University.

These scholarships are awarded annually by the Trustees of the Endowment Fund of the University each year upon nomination by the Medical Council to students who have meritoriously completed the work of at least the first year of the course in medicine, and who present to the Faculty satisfactory evidence of a good moral character and of inability to continue the course without pecuniary assistance.

The Randolph Winslow Scholarship.

(Value, \$125.00)

This scholarship was established by Prof. Randolph Winslow, M.D., LL.D.

It is awarded annually by the Trustees of the Endowment Fund of the University, upon nomination by the Medical Council, to "a needy student of the Senior, Junior, or Sophomore Class of the Medical School."

"He must have maintained an average grade of 85% in all his work up to the time of awarding the scholarship.

"He must be a person of good character and must satisfy the Medical Council that he is worthy of and in need of assistance."

The Dr. Leo Karlinsky Scholarship.

(Value, \$200.00)

This scholarship was established by Mrs. Ray Mintz Karlinsky as a memorial to her husband, the late Dr. Leo Karlinsky, an alumnus of the University.

It is awarded annually by the Trustees of the Endowment Fund of the University, upon nomination by the Medical Council, to "a needy student of the Senior, Junior or Sophomore Class of the Medical School."

"He must have maintained an average grade of 85 per cent. in all his work up to the time of awarding the scholarship."

"He must be a person of good character and must satisfy the Medical council that he is worthy of and in need of assistance."

The University Scholarships.

Two Scholarships are awarded by the University. One to a student of the Department of Liberal Arts appointed by the President; the other, which entitles the holder to exemption from payment of the tuition fee of the year, is awarded annually by the Medical Council to a student of the Senior Class who presents to the Medical Council satisfactory evidence that he is of good moral character and is worthy of and in need of assistance to complete the course.

The St. John's Scholarship.

This scholarship is awarded annually by the Medical Council upon the nomination of the President of St. John's College.

It entitles the holder to exemption from the payment of the tuition fee of that year.

Frederica Gehrman Scholarshp.

This scholarship was established by the bequest of the late Mrs. Frederica Gehrman and entitles the holder to exemption from payment of tuition fees. The scholarship is awarded to a second year student who at the end of the year passes the best practical examination in Anatomy, Physiology, Biological Chemistry, Pharmacology, Pathology, Immunology and Serology.

NOTICE TO STUDENTS.

The personal expenses of the students are at least as low in Baltimore as in any large city in the United States. The following estimates of student's personal expenses for the academic year of eight months have been prepared by students, and are based upon actual experience.

<i>Items.</i>	<i>Low</i>	<i>Average</i>	<i>Liberal</i>
Books.....	\$27	48	75
College Incidentals.....	20	20	20
Board, eight months.....	200	250	275
Room rent.....	64	80	100
Clothing and laundry.....	50	80	150
All other expenses.....	25	50	75
Total.....	\$386	\$529	\$695

Students will save time and expense upon their arrival in the city by going direct to the School of Medicine on the University grounds, N. E. corner of Lombard and Greene Streets, where the Superintendent of Buildings, who may be found at his office on the premises, will furnish them with a list of comfortable and convenient boarding houses suitable to their means and wishes.

The Dean will, if desired, attend to the collection of checks and drafts for students.

For further information, apply to

J. M. H. ROWLAND, M. D., *Dean*,
Lombard and Greene Streets.

ORGANIZATION OF THE CURRICULUM.

The following curriculum is the result of a thorough revision of teaching in this school in order to meet modern requirements. The multiplication of specialties in medicine and surgery necessitates a very crowded course and the introduction of electives will very soon be depended on to solve some of the difficulties.

The curriculum is organized under eleven departments:

1. Anatomy (including Histology and Embryology).
2. Physiology.
3. Biological Chemistry.
4. Pharmacology and Materia Medica.
5. Pathology.
6. Bacteriology.
7. Medicine (including Medical Specialties).
8. Surgery (including Surgical Specialties).
9. Obstetrics.
10. Gynecology.
11. Ophthalmology and Otology.

The instruction is given in four years of graded work.

Several courses of study extend through two years or more, but in no case are the students of different years thrown together in the same course of teaching.

The first and second years are devoted largely to the study of the structures and functions of the normal body, and laboratory work occupies most of the student's time during these two years.

Some introductory instruction in Medicine and Surgery is given in the second year. The third and fourth years are almost entirely clinical.

A special feature of instruction in the school is the attempt to bring together teacher and student in close personal relationship. In many courses of instruction the classes are divided into small groups and a large number of teachers insures attention to the needs of each student.

In many courses the final examination as the sole test of proficiency has disappeared and the student's final grade is determined largely by partial examinations, recitations and assigned work carried on throughout the course.

DEPARTMENT OF ANATOMY, INCLUDING HISTOLOGY AND EMBRYOLOGY.

C. L. DAVIS, M.D.	Professor of Anatomy
TILGHMAN B. MARDEN, A.B., M.D. ...	Professor of Histology and Embryology
M. J. HANNA, M.D.	Associate in Anatomy
HOWARD B. McELWAIN, M.D.	Instructor in Anatomy
LOUIS C. DOBIHAL, M.D.	Instructor in Histology
J. D. HOLOFCENER, M.D.	Instructor in Histology
STANLEY W. MATHEWS, M.D.	Instructor in Histology

FIRST YEAR. *Didactic.* Five hours each week for thirty-two weeks. Each day, preceding the laboratory period, a quiz and demonstration of from 40 to 50 minutes is held, covering the laboratory work for the day.

Laboratory. Eighteen hours each week for thirty-two weeks. This course includes a complete dissection of the human body, including the central nervous system. Abundance of good material is furnished and the student is aided in his work by competent demonstrators. Practical examinations are held at frequent intervals throughout the session and each student will be held to strict account for material furnished him. Each student is furnished a skeleton and a deposit is required to insure its return in good condition at the end of the session.

SECOND YEAR. *Didactic.* Three hours each week for six weeks. Lectures, recitations and conferences.

Laboratory. Seven hours each week for six weeks. This course is devoted exclusively to Neuro-Anatomy. A complete dissection of the human brain is required. This is followed by a study of the fiber tracts of the spinal cord and brain, special models and preparations being used for this part of the course.

Histology.

FIRST YEAR. Lectures, recitations and laboratory work, nine hours each week during first semester; three hours each week during second semester. The most important part of the work will be done in the laboratory, where each student will be provided with apparatus, staining fluids and material necessary for the preparation of specimens for microscopical examination. An important aid to the course is the projection microscope which is used for the projection upon a screen of magnified images of the specimens actually used in the laboratory.

A large number of completely prepared sections are loaned to the students for study. This materially reduces the time otherwise required by the student for the preparation of sections and insures the best possible class of material for study.

Embryology.

Lectures, recitations and laboratory work; six hours each week during the second semester.

This course includes the study of the development of the chick and the fundamental principles of mammalian embryology. In the laboratory, the hen's egg will be studied in its various stages of development, and sections of the chick at different periods of incubation will be made and studied microscopically. The latter part of the course will be devoted to the study of sections through different regions of a mammal.

Special emphasis is laid upon the development in the human.

DEPARTMENT OF PHYSIOLOGY.

BARTGIS MCGLONE, A.B., Ph.D.	Professor of Physiology
CHARLES C. CONSER, M.D.	Associate Professor of Physiology
FREDINAND A. RIES, M.D.	Associate in Physiology
JOSEPH P. POKORNY, M.D.	Instructor in Physiology
FIRMADGE K. NICHOLS, A.B., M.D.	Instructor in Physiology
J. OGLE WARFIELD, JR., A.B., A.M., M.D.	Assistant in Physiology

The course in Physiology extends throughout the First and Second Years. It consists of a series of lectures, covering the field of human physiology, laboratory work, demonstrations, and frequent recitations. It is constantly in the mind of the department that this course is introductory to the study of medicine. The recitations cover the subject-matter of the lectures and the experiments performed in the laboratory.

FIRST YEAR. 1. This course includes lectures and recitations upon the physiology of the blood and circulation, respiration, muscle and nerve, a portion of the central nervous system, and special senses, and such chemical and physical facts as are necessary for a proper understanding of the physiology taught. Two lectures and a recitation weekly throughout the year. Dr. McGlone, assisted by Dr. Ries.

SECOND YEAR. 2. *Didactic instruction.* During this year the remaining topics of physiology are covered by lectures and demonstrations. As in the first year frequent recitations will be held. The subject-matter includes the physiology of digestion and secretion, nutrition, metabolism, internal secretion, the central nervous system, and the eye and ear. Lectures, demonstrations, and recitations, three hours per week. Dr. McGlone, assisted by Drs. Conser and Ries.

3. *Experimental Physiology*. This is a laboratory course in the dynamics of muscle and nerve, studies in circulation and respiration, and physiology of the special senses. Apart from the acquisition of the facts of physiology, the student is taught to observe accurately, record carefully the results of his observations, and from these results draw an independent conclusion. He is also trained in the use of instruments which are of value to him in his clinical years. Three hours weekly throughout the year. Drs. McGlone, Ries, Conser, Pokorny and Warfield.

4. *Elective Course in Physiological Technique*. This course is offered to Sophomores. Three hours per week. Second semester.

5. *Special Mammalian Physiology*. This is a laboratory course intended for advanced laboratory students (optional) who may wish to do special work in this line of physiology. Hours to be arranged. Dr. McGlone.

6. *Research in Physiology*. Properly qualified students will be admitted to the laboratory, which is well adapted for postgraduate study and special research. Hours will be arranged to suit individuals. Dr. McGlone.

PHARMACOLOGY AND MATERIA MEDICA.

WILLIAM HENRY SCHULTZ, Ph.B., Ph.D.....	Professor of Pharmacology
O. G. HARNE, A.B.....	Associate Professor of Pharmacology
WILLIAM GLENN HARNE.....	Assistant in Pharmacology
.....	Assistant in Pharmacology

1. *Pharmacology*. *Materia Medica* and *Prescription Writing* required of all second year medical students during the first semester. Didactic, three hours a week; Laboratory, three hours a week.

This course is a prerequisite to all other courses in Pharmacology. Special emphasis is laid upon laboratory methods of observation and of intelligent note-taking. The essentials of prescription writing are taught and the student is introduced to the official pharmacopoeal preparations.

Not only is the student taught intelligently the use of the United States Pharmacopoeia and the National Formulary, but the principles underlying the establishment of some of the most practical recipes are attacked from a didactic point of view.

2. *Systematic Pharmacology*. Required of all second year medical students. Three hours a week during the year, two lecture periods and one period for quiz and general conferences. Special

care is taken to adapt the material to the practical need of the medical student. Emphasis, however, is laid upon the pharmacological action of drugs as a pure science in order that a critical attitude toward drugs may be instilled. As the student masters the pharmacology of an important drug, its dosage, incompatibilities, and practical applications are driven home by systematic assignments of prescription writing, quizzes, and conferences.

3. *Pharmacodynamics*.—Second semester. Required of all second year students. Prerequisite pharmacology 1. Laboratory, six hours a week.

The course runs parallel with pharmacology 2. Being a laboratory course it furnishes much didactic material used in the class conferences and lectures of pharmacology No. 2.

As the student's ability in handling biological material develops, experiments involving the more difficult technique of pharmacological experimentation are introduced. Special emphasis is laid upon the student's ability to handle live tissues and to make first-hand observations of a given drug's action, regardless of what standard text-books teach.

Class conferences, discussions, and the reading of assigned papers are used to supplement the laboratory and lecture. In these conferences the professor in charge attempts to summarize the class work as a whole, thereby properly coordinating it. It is by these means that the student acquires a critical and scientific attitude toward *official* and *new and non-official remedies*. The study is limited for the most part to such drugs as are known to have a definite pharmacological action and therapeutic value.

4. *Special Pharmacodynamics*. (Credit according to work done.)

This course is open to advanced students and special workers who desire advanced training, or who wish to pursue some special problem in Pharmacology or Toxicology. Hours to be arranged. Professor Schultz.

5. *Research in Pharmacology and Chemo-Therapy*. Properly qualified students are admitted to the laboratory with a view to their carrying on original investigations in drug action. The newly equipped laboratories are well adapted for postgraduate study and research in Pharmacology. Hours will be arranged to suit the applicant. Professor Shultz.

DEPARTMENT OF PATHOLOGY.

HUGH R. SPENCER, M.D.	Professor of Pathology
STANDISH MCCLEARY, M.D.	Professor of Pathology
SYDNEY CONE, M.D.,	Associate Professor of Pathology
WM. J. CARSON, M.D.	Associate Professor of Pathology
LAWRENCE GETZ, M.D.	Assistant in Pathology
A. E. GOLDSTEIN, M.D.	Assistant in Pathology

Courses of instruction in pathology are given during the second, third, and fourth years. The courses are based on previous study of normal structure and function and aim to outline the natural history of disease. The instruction is made as practical as possible that the student may become familiar with the appearance of organs and tissues in disease and may be able to correlate anatomical lesions with clinical symptoms and signs.

1. GENERAL PATHOLOGY AND HISTO-PATHOLOGY This course is given to second year students. It includes the study and demonstration of disturbances of the body fluids, disturbances of structure, nutrition and metabolism of cells, disturbances of fat, carbohydrate and protein metabolism, disturbances in pigment metabolism, inflammation and tumors. The laboratory course consists in a daily preliminary talk on the subject for study, following which the student takes up the study of microscopical sections. Gross material from autopsy and from the museum is demonstrated in conjunction with the microscopical study.

2. APPLIED PATHOLOGY, INCLUDING GROSS MORBID ANATOMY AND MORBID PHYSIOLOGY. Third year students: In this course the special relationship of the gross and microscopical lesions to clinical symptoms and signs is emphasized. Fresh material from autopsy collected at the various hospitals is demonstrated and supplemented by a study of the respective autopsy protocols.

Special stress is laid upon the study of the infectious diseases and where possible the causative agents are studied.

3. AUTOPSIES. Third year. Autopsy technic is taught to small groups of students by special instruction at autopsies performed at the various hospitals. Students are required to assist at the autopsy, study the organs, examine the microscopical sections, make cultures and prepare autopsy protocols.

4. CLINICAL PATHOLOGICAL CONFERENCE. Fourth year. Material from autopsies is studied with reference to the clinical history and gross and microscopical anatomy. The course is illustrated with sections of fixed material or lantern slides.

5. **ADVANCED WORK IN PATHOLOGY.** Properly qualified students will be permitted to carry out advanced or research work along the lines of experimental pathology. Adequate space and equipment is available.

DEPARTMENT OF BACTERIOLOGY AND IMMUNOLOGY.

WILLIAM ROYAL STOKES, M.D. Sc.D.	.....	Professor of Bacteriology
FRANK W. HACHTEL, M.D.	.....	Associate Professor of Bacteriology
LOUIS F. KRUMREIN, M.D.	.....	Instructor in Bacteriology
J. A. F. PFEIFFER, M.D.	.....	Instructor in Bacteriology
HENRY F. BUETTNER, M.D.	.....	Instructor in Bacteriology

Instruction in bacteriology is given in the laboratory to the students of the first year during the second semester. This includes the various methods of preparation and sterilization of culture media, the study of pathogenic bacteria and the bacteriological examination of water and milk. The bacteriological diagnosis of the communicable diseases is also included in this course. Animal inoculations are made in connection with the bacteria studied. The most important protozoa are also studied in the laboratory. The principles of general bacteriology are taught by quiz, conference and lecture.

The principles of immunology are presented by means of quizzes, conferences and lectures to the second year class throughout the first semester and practical experiments are carried out by the class in laboratory sessions of three hours each held twice weekly during the semester.

DEPARTMENT OF BIOLOGICAL CHEMISTRY.

H. BOYD WYLIE, M.D.	.....	Professor of Biological Chemistry
FRANK N. OGDEN, M.D.	.....	Associate in Biological Chemistry

Instruction in Biological Chemistry comprises laboratory work, lectures and conferences.

LABORATORY WORK. The first few weeks of the laboratory work consists in the preparation of normal and standard solutions which requires careful use of the analytical balance and of volumetric glassware. The knowledge gained in this preliminary period is then put to practical application in the making of quantitative determinations of nitrogenous compounds of known nitrogen content. Daily reports are required of each student in this work and a careful record is kept of his ability.

At the end of this period there follows a long course of laboratory work on the chemistry and metabolism of the carbohydrates, proteins and lipins. Each type of foodstuff is considered separately; first its chemistry is studied and then its metabolism. In following this arrangement the usual long stretch of the pure chemistry of all the foodstuffs is eliminated.

Experiments on the tissues of the body then follow, and precede the final group of experiments on bile, milk and those which relate to the more thorough study of blood and urine.

Throughout the laboratory work the older methods have been excluded, and those tests which are a duplication of the same principle have been reduced to minimum. Quantitative tests include only those which are representative and essential. A great deal of stress is laid upon the importance of quantitative and metabolic experiments, so that this type of work constitutes the major part of the laboratory experiments in this course.

LECTURES. The lectures precede or run parallel to the laboratory work, as far as possible. The first lectures deal with laboratory technic, the chemistry of solutions and indicators, osmosis, the chemistry of colloids, catalysis, reversible reactions, the law of mass action and a discussion of enzymes. The lectures which follow refer to the chemistry and metabolism of carbohydrates, proteins and lipins. Relatively less time is given to the discussion of the chemistry of the various foodstuffs and more to the discussion of their metabolism. In these lectures the fundamental principles (biological, physical and chemical) are emphasized, not, however, to the exclusion of the correlation of the normal and abnormal metabolism.

The final lectures relate to the discussions of the secretions, including milk, and of the blood and urine, including the metabolism of inorganic substances, salts and water.

CONFERENCES. From time to time conferences are held for the purpose of summarizing the work completed; to discuss any problems that have arisen during the course, and to review articles in journals which have a bearing on the current laboratory or lecture work.

During the second semester sections are sent to the hospital for the purpose of collecting data on special metabolic or associated conditions. This data will be presented to the class as a whole and later discussed at a special clinic conducted in the hospital by a member of the Department of Medicine in collaboration with this department.

CLINICAL INSTRUCTION

DEPARTMENT OF MEDICINE.

MAURICE C. PINCOFFS, S.B., M.D.,	Professor of Medicine
GORDON WILSON, M.D.	Professor of Medicine
CARY B. GAMBLE JR., A.M., M.D.	Professor of Medicine
STANDISH MCCLEARY, M.D.	Professor of Pathology and Clinical Medicine
JOS. E. GICHNER, M.D.	Professor of Clinical Medicine
CHARLES W. McELFRESH, M.D.	Professor of Clinical Medicine
G. CARROLL LOCKARD, M.D.	Professor of Clinical Medicine
HARVY G. BECK, Sc.D., M.D.	Professor of Clinical Medicine
PAUL W. CLOUGH, B.S., M.D.	Associate Professor of Medicine
C. C. W. JUDD, A.B., M.D.	Associate Professor of Medicine
SYDNEY R. MILLER, M.D.	Associate Professor of Medicine
JOHN LUTZ, A.B., M.D.	Associate Professor of Medicine
H. D. MCCARTY, M.D.	Associate Professor of Clinical Medicine
WM. H. SMITH, M.D.	Associate Professor of Clinical Medicine
H.J. MALDEIS, M.D.	Associate Professor of Medical Jurisprudence
S. LLOYD JOHNSON, A.B., M.D.	Assistant Professor of Medicine
R. C. METZEL, M.D.	Associate in Clinical Medicine
W. I. MESSICK, M.D.	Associate in Clinical Medicine
GEORGE McLEAN, M.D.	Associate in Medicine
HARRY M. STEIN, M.D.	Associate in Medicine
L. A. M. KRAUSE, M.D.	Associate in Medicine
E. E. MAYER, M.D.	Instructor in Medicine
D. CORBIN STREETT, M.D.	Instructor in Medicine
C. C. HABLSTON, M.D.	Instructor in Medicine
H. R. LICKLE, M.D.	Instructor in Medicine
J. W. MARTINDALE, M.D.	Instructor in Medicine
C. R. GOLDSBOROUGH, A.M., M.D.	Instructor in Medicine
HENRY SHEPPARD, M.D.	Instructor in Medicine
HERMAN SEIDEL, M.D.	Assistant in Medicine
WETHERBEE FORT, M.D.	Assistant in Medicine
EDWARD NOVAK, M.D.	Assistant in Medicine
F. A. RIES, M.D.	Assistant in Medicine
WILLIAM MICHEL, M.D.	Assistant in Medicine
LEON FREEDOM., M.D.	Assistant in Medicine
M. G. GICHNER, M.D.	Assistant in Medicine

GENERAL OUTLINE.

SECOND YEAR

Introduction to clinical medicine.

- (a) Introductory physical diagnosis.
(1 hour a week, first semester).
(2 hours a week, second semester).
- (b) Clinical lectures on pathological physiology.
(1 hour a week, second semester).

THIRD YEAR.

- I. The methods of examination (13 hours a week).
 - (a) History taking.
 - (b) Physical diagnosis.
 - (c) Clinical pathology.These subjects are taught and practiced in the out-patient department and in the clinical laboratory.
- II. The principles of medicine (7 hours a week).
 - (a) Lectures, clinics and demonstrations in general medicine, neurology, pediatrics and preventive medicine.
- III. The principles of therapeutics (2 hours a week).
Lectures and demonstrations in general therapeutics, physical therapeutics and materia medica.

FOURTH YEAR.

The practice of medicine.

- I. Clinical clerkship on the medical wards.
(26 hours a week for ten weeks).
 - (a) Responsibility, under supervision, for the history, physical examination, laboratory examinations and progress notes of assigned cases.
 - (b) Ward classes in general medicine, the medical specialties, and therapeutics.
- II. Clinics in general medicine and the medical specialties (6 hours a week).
- III. Dispensary work in the medical specialties.
- IV. Clinical pathological conferences (1 hour a week).

Medical Dispensary Work.

The medical dispensaries of both the Mercy and the University Hospitals are utilized for teaching in the third year. Each student spends two periods a week of two hours each in dispensary work. The work is done in groups of four to six students under an instructor. Systematic history taking is especially stressed. Physical findings are demonstrated. The student becomes familiar with the commoner acute and chronic disease processes.

Physical Diagnosis.

SECOND YEAR. Didactic lectures and practical demonstrations in topographical anatomy and normal physical signs.

THIRD YEAR. The class is divided into small groups, and each section receives instruction for four hours a week for the entire session in the medical dispensaries of the hospitals. The large clinical material of the dispensaries and hospitals is utilized to give each student the opportunity to familiarize himself with the common types of bodily structure, with the normal variations in physical signs and with the physical signs of the chief pulmonary circulatory and abdominal diseases.

Tuberculosis.

During the third year in connection with the instruction in physical diagnosis a practical course is given weekly to sections of the class at the Municipal Tuberculosis Hospital. Stress is laid upon the recognition of the physical signs of the disease, as well as upon its symptomatology and gross pathology.

Therapeutics.

THIRD YEAR. General therapeutics and materia medica are taken up and an effort is made to familiarize the student with the practical treatment of disease. The special therapy of the chief diseases is then reviewed. Two hours a week. Dr. Lockard.

The principles of physical therapy are taught in a special lecture and demonstration course consisting of six one-hour periods. Dr. Gichner.

FOURTH YEAR. Special consideration is given to the practical application of therapeutic principles in bedside teaching and the chief therapeutic methods are demonstrated.

CLINICAL PATHOLOGY.

JOHN LUTZ, M.D.....	Associate Professor of Medicine
H. J. MALDEIS, M.D.....	Associate Professor of Medical Jurisprudence
L. A. M. KRAUSE, M.D.....	Associate in Medicine
C. R. GOLDSBOROUGH, M.D.....	Instructor in Medicine
M. G. GICHNER, M.D.....	Assistant in Medicine

During the third year the student is thoroughly drilled in the technique of the usual clinical laboratory work, so that he is able to perform all routine examination which may be called for during his fourth year, in connection with the work in the wards and dispensary.

The practical work is supplemented by a series of didactic lectures and demonstrations in which the entire teaching staff of the department takes an active part. The microscopical and chemical study of blood, exudates and transudates, gastric juice, spinal fluid, feces and urine are successively taken up, and special attention directed to the clinical significance of the findings.

Clinical parasitology from the standpoint of the infecting agent and the carrier is given careful consideration.

The entire course is thoroughly practical. Each student is provided with a microscope, blood counters and hemoglobinometer for his exclusive use, and every two students with a special laboratory outfit for all routine purposes.

During the fourth year the student applies what he has learned during the preceding year in the laboratories of the various affiliated hospitals. He is also supplied with a laboratory outfit which is sufficiently complete to enable him to work independently of the general equipment. Special instructors are available during certain hours to give necessary assistance and advice.

GASTRO-ENTEROLOGY.

JULIUS FRIEDENWALD, A.M., M.D.	Professor of Gastro-Enterology
T. FRED LEITZ, M.D.	Clinical Professor of Gastro-Enterology
J. HARRY ULLRICH, M.D.	Associate in Gastro-Enterology
THEODORE H. MORRISON, M.D.	Associate in Gastro-Enterology
MAURICE FELDMAN, M.D.	Instructor in Gastro-Enterology
JOSEPH SINDLER, M.D.	Assistant in Gastro-Enterology
Z. MORGAN, M.D.	Assistant in Gastro-Enterology
M. S. KOPPELMAN, M.D.	Assistant in Gastro-Enterology
N. J. DAVIDOF, M.D.	Assistant in Gastro-Enterology
ALBERT EISENBERG, M.D.	Assistant in Gastro-Enterology
PAUL F. WIEST, M.D.	Assistant in Gastro-Enterology
I. S. ZINBERG, M.D.	Assistant in Gastro-Enterology
W. E. GREMPLE, M.D.	Assistant in Gastro-Enterology

FOURTH YEAR. Clinic recitations and demonstrations to the class for one hour a week throughout the session. Dispensary instruction to small groups throughout the entire session. Practical instruction in the differential and clinical diagnosis and demonstrations of the newer methods of diagnosis in gastro-intestinal affections.

PSYCHIATRY.

R. M. CHAPMAN, M.D.	Professor of Psychiatry
PAUL E. EWERHARDT, M.D.	Associate in Psychiatry

THIRD YEAR. In the third year the student attends fifteen clinical lectures and five clinics which are designed to be introductory to the more intensive work in psychiatry in the fourth year.

FOURTH YEAR. The class is divided into sections for clinical conferences on selected groups of cases. Each student works

for a short period as assistant in the Mental Hygiene Clinic and thus gains practical experience of the problems of history taking, examination, and the care of psychiatric patients.

PEDIATRICS.

JOHN RUHRAH, M.D.	Professor of Pediatrics
CHARLES L. SUMMERS, M.D.	Professor of Pediatrics
EDGAR B. FRIEDENWALD, M.D.	Clinical Professor of Pediatrics
C. LORING JOSLIN, M.D.	Assistant Professor in Pediatrics
W. H. INGRAM, M.D.	Associate in Pediatrics
H. H. WARNER, M.D.	Associate in Pediatrics
W. J. TODD, M.D.	Instructor in Pediatrics
JOHN H. TRABAND, M.D.	Instructor in Pediatrics
WILLIAM F. GEYER, M.D.	Instructor in Pediatrics
BERNARD J. FERRY, M.D.	Assistant in Pediatrics
CHARLES GOLDSBOROUGH, M.D.	Assistant in Pediatrics
GEORGE E. WELLS, M.D.	Assistant in Pediatrics
E. C. REITZEL, M.D.	Assistant in Pediatrics
F. STRATNER OREM, M.D.	Assistant in Pediatrics
CLARENCE E. MACKE, M.D.	Assistant in Pediatrics
H. WHITNEY WHEATON, M.D.	Assistant in Pediatrics
ROBERT S. KIRK, M.D.	Assistant in Pediatrics
P. ARTIGIANI, M.D.	Assistant in Pediatrics
H. J. DORF, M.D.	Assistant in Pediatrics
D. H. LAWLER, M.D.	Assistant in Pediatrics
H. R. LICKLE, M.D.	Assistant in Pediatrics
I. J. FEINGLOS, M.D.	Assistant in Pediatrics

THIRD YEAR. Instruction during the third year consists of one lecture each week in which infant feeding and the most important diseases of infancy and childhood are especially emphasized. Drs. Ruhrah and Summers.

FOURTH YEAR. During this year a weekly clinical lecture is given where the character of disease is fully demonstrated and the students are afforded an opportunity for personal examination of all cases. In addition ward classes are held weekly where bedside instruction is given. A section of the class also works daily at the Babies' and Children's Clinic. This clinic, which is under the direction of Dr. Summers, has a yearly attendance of more than fifteen thousand, and offers an excellent opportunity for study and observation of a wide variety of cases under competent instructors.

Instruction is also given in the Children's Dispensary at the Mercy Hospital.

NEUROLOGY.

IRVING J. SPEAR, M.D.	Professor of Neurology
ANDREW C. GILLIS, A.M., M.D.	Professor of Neurology
G. M. SETTLE, A.B., M.D.	Associate Professor of Neurology
BENJAMIN PUSHKIN, M.D.	Instructor in Neurology
MILTON LEVY, M.D.	Instructor in Neurology
J. A. SKLADOWSKY, M.D.	Assistant in Neurology

THIRD YEAR. Lectures and recitations two hours each week to entire class throughout one semester. This course comprises the study of the anatomy and physiology of the nervous system, the method of neurological examination, and relationship of signs and symptoms to pathological conditions. The material at University and Mercy Hospitals is available.

Clinical Conference, one hour each week to the entire class. This subject is taught at the University and Mercy Hospitals. All cases presented at these clinics are carefully examined; complete written records are made by the students who demonstrate the cases before the class. These cases are usually assigned one or two weeks before they are presented, and each student in the class must prepare one or more cases during the year.

Ward Class Instruction. In small sections at the University and Mercy Hospitals. In these classes the students come in close personal contact with the cases in the wards under the supervision of the instructor.

Dispensary Instruction. Small sections are instructed in the dispensaries of the University and Mercy Hospitals four afternoons each week. In this way students are brought into contact with nervous diseases in their earlier as well as later manifestations.

HYGIENE AND PREVENTIVE MEDICINE.

C. HAMPSON JONES, M.D., C.M.	Professor of Hygiene and Public Health
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THIRD YEAR. Two lectures a week throughout the session. The lectures will encompass the fundamental subjects: Air, Water, Soil, Food, Disposal of Wastes, Communicable Diseases, State and Federal Public Health Laws, and Industrial Diseases.

MEDICAL JURISPRUDENCE.

H. J. MALDEIS, M.D.	Associate Professor of Medical Jurisprudence Baltimore City Post Mortem Physician
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FOURTH YEAR. One hour each week for one semester.

Inasmuch as Medical Jurisprudence teaches the application of every branch of medical knowledge to the needs of the law, civil or

criminal, this course embraces the following:—Proceedings in criminal and civil prosecution; medical evidence and testimony; identity in its general relations; sexual abnormalities; personal identity; impotence and sterility; rape; criminal abortions; signs of death; wounds in their medico-legal relations; death, natural and homicidal; malpractice; insanity and medico-legal autopsies.

DEPARTMENT OF SURGERY.

ARTHUR M. SHIPLEY, Sc.D., M.D.	Professor of Surgery
ARCHIBALD C. HARRISON, M. D.	Professor of Surgery
ALEXIUS MCGLENNAN, A.M., M.D.	Professor of Surgery
JOSEPH H. BRANHAM, M.D.	Professor of Clinical Surgery
NATHAN WINSLOW, A.M., M.D.	Clinical Professor of Surgery
PAGE EDMUNDS, M.D.	Clinical Professor of Industrial Surgery
WALTER D. WISE, M.D.	Clinical Professor of Surgery
JOSEPH W. HOLLAND, M.D.	Clinical Professor of Surgery
J. C. LUMPKIN, M.D.	Clinical Professor of Surgery
H. C. BLAKE, M.D.	Associate Professor of Clinical Surgery
FRANK S. LYNN, M.D.	Associate Professor of Surgery
ELLIOT H. HUTCHINS, A.M., M.D.	Associate Professor of Surgery
THOMAS R. CHAMBERS, A.M., M.D.	Associate Professor of Surgery
R. W. LOCHER, M.D.	Associate Professor of Operative and Clinical Surgery
E. H. HAYWARD, M.D.	Associate in Surgery
FRANK J. KIRBY, M.D.	Associate in Surgery
CHARLES REID EDWARDS, M.D.	Associate in Surgery
F. L. JENNINGS, M.D.	Instructor in Surgery
A. M. EVANS, M.D.	Instructor in Surgery
H. M. FOSTER, M.D.	Instructor in Surgery
E. S. JOHNSON, M.D.	Instructor in Surgery
F. X. KEARNEY, M.D.	Assistant in Surgery
G. W. BOWDEN, M.D.	Assistant in Surgery
DWIGHT MOHR, M.D.	Assistant in Surgery
AMOS HUTCHINS, M.D.	Assistant in Surgery
C. A. REIFSCHNEIDER, M.D.	Assistant in Surgery
WM. R. GERAGHTY, M.D.	Assistant in Surgery
S. DEMARCO, M.D.	Assistant in Surgery
O. H. LLOYD, M.D.	Assistant in Surgery
CLYDE MARVEL, M.D.	Assistant in Surgery
EVERARD BRISCOE, M.D.	Assistant in Surgery
I. O. RIDGELY, M.D.	Assistant in Surgery
H. B. MCELWAIN, M.D.	Assistant in Surgery
C. F. HORINE, M.D.	Assistant in Surgery
D. J. PASSAGNO, M.D.	Assistant in Surgery

The teaching is in the Anatomical Laboratory and the dispensaries, wards, clinical laboratories and operating rooms of the University and Mercy Hospitals, and in the wards and dead-house of the Municipal Hospitals at Bay View.

Instruction is given by means of lectures, recitations, dispensary work, bedside instruction, ward classes, and clinics. The work begins in the second year, and continues throughout the third and fourth years.

Second Year.

Topographic and Surgical Anatomy. 10 hours a week for the first semester. The course is designed to bridge the gap between anatomy in the abstract, and clinical anatomy as applied to the study and practice of medicine and surgery.

The teaching is done in the anatomical laboratory, and students are required to demonstrate all points, outlines, and regions on the cadaver. Underlying regions are dissected when necessary to bring out outlines and relations of structures. Didactic lectures two hours weekly, augmented by demonstrations with specimens, charts, and cross-sections. Dr. Holland, assisted by Drs. Reifschneider, Foster, J. Mason Hundley, Jr., and Reitzel.

Surgical Technique. The course includes history taking, first aid treatment, demonstration of use of tourniquet and other emergency appliances and surgical dressings, bandages, plaster, adhesive plaster, suture material, solutions; their preparation and use.

It includes also inflammation and suppuration, ulcers, gangrene, fistulae, sinuses, non-operative therapeutics, asepsis and antisepsis, the study of circulatory and respiratory failure, preparation of patients, dummy operations and written description of operation, splints, bed frames, bone plates, grafts and local anaesthesia.

Lectures and conferences two hours a week for one semester. Dr. Edwards.

Third Year.

General and Regional Surgery. Principles of surgery and general surgery, three hours a week throughout the year to the entire class, lectures, recitations and clinics. Dr. Shipley.

The class is divided into groups and receives instruction in history-taking, gross pathology, and surgical diagnosis—at the bedside and in the deadhouse of the Municipal Hospitals at Bay View. Drs. Shipley and Lynn.

Operative Surgery. Instruction is given in operative surgery upon the cadaver and on dogs. The class is divided into sections, and each section is given practical and individual work under the supervision of the instructors. Dr. Frank S. Lynn, assisted by

Drs. Nathan Winslow, Locher, Hayward, E. S. Johnson, Edwards, Foster, Reifschneider, Geraghty, Demarco, Kearney, Briscoe and Horine.

Fractures and Dislocations. Twenty-four hours to the entire class. This course consists of instruction in the various forms of fractures and dislocations and their treatment, and serves as a preparatory course for clinical work. Dr. Wise.

Surgical Dispensary. Under supervision, the student takes the history, makes the physical examinations, attempts the diagnosis, and, as far as possible, carries out the treatment of the ambulatory surgical cases in the University and Mercy Hospitals. Mercy Hospital—Drs. Amos Hutchins, A. M. Evans, Dwight Mohr, Kearney, Marvel, Ridgely and Passagno. University Hospital—Drs. Holland, Lynn, Nathan Winslow, Edwards, E. S. Johnson and Foster.

Fourth Year.

Clinics. A weekly clinic will be given at the Mercy and University Hospitals to one-half the class throughout the year. As far as possible this is a diagnostic clinic. Mercy Hospital—Drs. Harrison and McGlannan. University Hospital—Dr. Shipley.

Surgical Pathology. A weekly exercise of one hour at Mercy Hospital for one semester, at which specimens from the operating-room and museum are studied in the gross and microscopically, in relation with the case history. Dr. McGlannan.

Industrial Surgery. Operative and post-operative treatment of accident cases, with instructions as to the relationship between the state, the employee, and employer, and the physician's duty to each. One hour a week to sections of the class throughout the year. Dr. Edmunds.

Clinical Clerkship. The personal study of assigned hospital patients, under supervision of the staffs of University and Mercy Hospitals, history taking, and physical examination of patients, laboratory examinations, attendance at operations and observation of post-operative treatment.

Ward Classes. Ward class instruction in small groups, will consist of ward rounds, surgical diagnosis, treatment and the after care of operative cases. Mercy Hospital—Drs. Harrison, McGlannan, Wise, Elliot Hutchins, Evans and Locher. University—Drs. Shipley, Holland, Edmunds, Lynn and Edwards.

ANAESTHESIA.

Second Year.

Lectures on history of anaesthesia, general physiology of inhalation of anaesthetics, special physiology of each anaesthetic, methods of administration, inhalation, colonic, intravenous, complications and preventive methods, including artificial respiration and post-anaesthesia treatment of patients. One hour weekly for one semester. Dr. S. Griffith Davis.

Anaesthesia in obstetrics, one lecture. Dr. J. McF. Bergland.

Fourth Year.

During the clinics and operations before small groups, each student will be required to administer anaesthetic under the direction of an instructor. University Hospital—Drs. Queen and Moore. Mercy Hospital—Drs. Kearney and Ridgely.

DERMATOLOGY.

T. CASPER GILCHRIST, M.R.C.S., L.S.A., M.D.	Professor of Dermatology
MELVIN ROSENTHAL, M.D.	Associate Professor of Dermatology
JOHN R. ABERCROMBIE, A.B., M.D.	Associate in Dermatology
HARRY M. ROBINSON, M.D.	Associate in Dermatology
JOSEPH E. GATELY, M.D.	Instructor in Dermatology
JOHN A. BUCHNESS, M.D.	Assistant in Dermatology

Clinical conferences one hour each week to entire class. This course will consist of demonstrations of the common diseases of the skin. Dr. Gilchrist.

Dispensary instruction, University Hospital, Mondays, Wednesdays and Fridays in the diagnosis and treatment of the common skin diseases. Drs. Abercrombie, Robinson and Gately. Dispensary instruction, Mercy Hospital. Dr. Rosenthal.

ORTHOPAEDIC SURGERY.

R. TUNSTALL TAYLOR, A.B., M.D.	Professor of Orthopedic Surgery
ALBERTUS COTTON, A. M., M.D.	Professor of Orthopedic Surgery
COMPTON RIELY, M.D.	Clinical Professor of Orthopedic Surgery
W. H. DANIELS, M.D.	Demonstrator in Orthopedic Surgery
W. ARTHUR DARBY, M.D.	Demonstrator in Orthopedic Surgery
H. L. WHEELER, M.D.	Demonstrator in Orthopedic Surgery

In this course didactic, clinical, bedside and out-patient instruction will be given. This instruction is provided in the University Hospital Amphitheater and Dispensary, Mercy Hospital and Dis-

pensary and Kernan Hospital and Industrial School for Crippled Children at "Radnor Park," and in the Dispensary of same at 620 West Lombard Street.

Lectures, clinics and quizzes will be held at each of the hospitals once a week. In addition, a weekly bedside clinic will be held for small sections of the class at "Radnor Park."

The course will cover instruction in special methods and instruments required in this surgical specialty, including X-Ray technique; Wolff's law; tuberculosis of bones and joints; deformities of the feet; non-tuberculous deformities of the feet and joints; the paralyses; the bursal, tendinous and muscular conditions producing orthopedic affections; rickets; scurvy; osteomalacia; chondro-dystrophies; wry-neck and the use and application of orthopedic apparatus.

ROENTGENOLOGY AND RADIOTHERAPY.

HENRY J. WALTON, M.D.	Professor of Roentgenology
ALBERTUS COTTON, M.D.	Professor of Roentgenology
JOHN EVANS, M.D.	Associate Professor of Roentgenology
CHARLES REID EDWARDS, A.B., M.D.	Associate in Radio Therapy

Instruction is given in the history, physics, and practical application of Roentgen Rays and Radium. Especial effort is made to demonstrate the use of the Roentgen Ray in diagnosis by instruction in both fluoroscopy and plate reading. The sections of the fourth year class receive two hours instruction each week.

The student is also taught the practice, application of Radium and Roentgen rays as therapeutic agents. In the X-ray laboratory and in the hospital wards students are shown the use of these agents in the treatment of disease.

DISEASES OF THE THROAT AND NOSE.

EDWARD A. LOOPER, M.D.,	Clinical Professor of Diseases of the Throat and Nose
FRANK DYER SANGER, M.D.	Professor of Diseases of the Throat and Nose
George W. MITCHELL, M.D.,	Associate Professor of Diseases of the Throat and Nose
GEORGE MURGATROYD, M.D.	Associate in Diseases of the Throat and Nose
W. F. ZINN, M.D.	Associate in Diseases of the Throat and Nose
FRANK B. ANDERSON, M.D.	Instructor in Diseases of the Throat and Nose
R. F. MCKENZIE, M.D.	Instructor in Diseases of the Throat and Nose

THIRD YEAR. Instruction to entire class is given in the common diseases of the nose and throat, attention being especially directed to infections of the accessory sinuses, the importance

of focal infections in the etiology of general diseases, modern methods of diagnosis. Lectures illustrated by lantern slides. Dr. Looper.

FOURTH YEAR. Dispensary Instruction daily to small sections at the University and Mercy Hospitals. The student is given opportunity to study, diagnose and treat practical cases under an Instructor. Ward classes and clinical demonstrations are given one and one-half hours throughout the session in the University and Mercy Hospitals.

GENITO-URINARY DISEASES.

ANTON G. RYTINA, A.B., M.D.....	Professor of Genito-Urinary Diseases
HARRIS GOLDMAN, M.D.....	Associate in Genito-Urinary Diseases
W. H. TOULSON, M.D.....	Associate in Genito-Urinary Diseases
A. J. GILLIS, M.D.....	Instructor in Genito-Urinary Diseases
WILFRED A. COUNCILL, M.D.....	Instructor in Genito-Urinary Diseases
AMOS F. HUTCHINS, M.D.....	Instructor in Genito-Urinary Diseases
AUSTIN H. WOOD, M.D.....	Instructor in Genito-Urinary Diseases
L. K. FARGO, M.D.....	Assistant in Genito-Urinary Diseases
H. C. KNAPP, M.D.....	Assistant in Genito-Urinary Diseases
H. T. COLLENBERG, M.D.....	Assistant in Genito-Urinary Diseases
J. H. COLLINSON, M.D.....	Assistant in Genito-Urinary Diseases
MILTON C. LANG, M.D.....	Assistant in Genito-Urinary Diseases
VICTOR RICHARDS, M.D.....	Assistant in Genito-Urinary Diseases

Instruction in Genito-Urinary Surgery is given to the members of the senior class, from both the practical and didactic standpoint. The course includes everything pertaining to modern urology. such as urethroscopy, cystoscopy, ureter catheterization, renal functional tests, X-ray, pyelography, blood urea estimations, etc,

The teaching consists of clinics in the amphitheater, ward rounds and attendance by members of the senior class upon out-patients in the dispensary. In the latter department there were about 30,000 visits made during the past year. Ample facilities are afforded the students to see a large variety of every type of venereal disease. They are first instructed in the methods of taking a genito-urinary history, are shown the technique of urethroscopy, cystoscopy, urethral instrumentation, prostatic massage, demonstrations of the spirocheta pallida, and administration of arsphenamine.

DISEASES OF THE COLON AND RECTUM.

G. MILTON LINTHICUM, A.M., M.D.,

Professor of Diseases of Rectum and Colon

CHARLES F. BLAKE, M.D. Professor of Diseases of Rectum and Colon

J. DAWSON REEDER, M.D.,

Associate Professor of Diseases of Rectum and Colon

FOURTH YEAR. This course is for instruction in diseases of the Colon, Sigmoid Flexure, Rectum and Anus, and will cover the essential features of the Anatomy and Physiology of the large intestine, as well as the various diseases to which it is subject. The importance of diseased conditions and malpositions of the intestines, in relation to systemic disturbances, will be emphasized by demonstrations.

In small groups, the students will be taken into the wards and dispensaries of the University and Mercy Hospitals, where different phases of the various diseases will be taught by direct observation and examination. The use of the proctoscope and sigmoidoscope in examination of the rectum and sigmoid will be made familiar to each student.

A course in Proctoscopy may be given in the City Hospitals at Bay View, where abundance of material is always obtainable.

DEPARTMENT OF OBSTETRICS.

J. M. H. ROWLAND, M.D. Professor of Obstetrics

GEORGE W. DOBBIN, M.D. Professor of Obstetrics

BERNARD PURCELL MUSE, M.D. Professor of Clinical Obstetrics

CHARLES E. BRACK, M.D. Clinical Professor of Obstetrics

L. H. DOUGLASS, M.D. Associate Professor of Obstetrics

J. MCF. BERGLAND Associate Professor of Obstetrics

H. S. GORSUCH, M.D. Associate in Obstetrics

THOMAS K. GALVIN, M.D. Associate in Obstetrics

E. P. SMITH, M.D. Associate in Obstetrics

EMIL NOVAK M.D. Associate in Obstetrics

F. H. MACHIN, M.D. Assistant in Obstetrics

J. G. M. REESE, M.D. Assistant in Obstetrics

SUSANNE R. PARSONS, A.M., M.D., Ph.D. Assistant in Obstetrics

DUDLEY PLEASANTS BOWE, B.A., M.D. Assistant in Obstetrics

STANLEY W. MATHEWS, M.D. Assistant in Obstetrics

J. G. MURRAY, A.B., M.D. Assistant in Obstetrics

MAURICE LAZENBY, M.D. Assistant in Obstetrics

THIRD YEAR. Three lectures and recitations each week by Drs. Dobbin and Bergland to entire class. Manikin Work, Drs. Brack, Galvin and Smith to sections of class at Mercy Hospital, and Drs. Douglass, Reese, Matthews, Bowe, Machin, Gorsuch, Parsons and Rowland at University Hospital.

FOURTH YEAR. Clinical Conference. One hour each week for one semester to University Hospital section. Drs. Rowland, Douglass and Murray.

Ward Classes. Six hours per week for five weeks to sections of class at University Hospital. Drs. Reese, Gorsuch, Parsons, Machin and Rowland.

DEPARTMENT OF GYNECOLOGY.

WILLIAM S. GARDNER, M.D.....	Professor of Gynecology
J. MASON HUNDLEY, M.D.....	Professor of Clinical Gynecology
W. B. PERRY, M.D.....	Professor of Clinical Gynecology
HUGH BRENT, M.D.....	Associate Professor of Gynecology
ABRAHAM SAMUELS, M.D.....	Associate Professor of Gynecology
GEO. A. STRAUSS, M.D.....	Associate in Gynecology
R. G. WILLSE, M.D.	Associate in Gynecology
T. K. GALVIN, M.D.....	Assistant in Gynecology
JACK M. HUNDLEY, M.D.....	Assistant in Gynecology

THIRD YEAR. *Didactic Work.* A course of thirty lectures and recitations in the second semester.

Clinical Work. Six hours weekly for one trimester. In this course the student writes the clinical history of each patient in the ward, makes a general physical examination, including the blood and urine, before the patient is brought before the class. One student under supervision gives the anaesthetic, a pelvic examination is made by six students, and any operation required is then done before a section of the class small enough to see clearly what is being done and how it is done. On a subsequent day the whole group examine microscopically sections prepared from material removed from patients that have been before them.

DEPARTMENT OF OPHTHALMOLOGY AND OTOTOLOGY.

HARRY FRIEDENWALD, A.B., M.D....	Professor of Ophthalmology and Otology
J. W. DOWNEY, M.D.....	Clinical Professor of Otology
CLYDE A. CLAPP, M.D.....	Associate Professor of Ophthalmogy
M. RANDOLPH KAHN, M.D.....	Associate Professor of Ophthalmogy
H. K. FLECK, M.D.....	Associate in Ophthalmogy
JOSEPH I. KEMLER, M.D.....	Associate in Ophthalmogy
E. A. KNORR, M.D.....	Associate in Ophthalmogy

THIRD YEAR. *Course in Diseases of the Eye.* October 2nd to January 18th. Dr. Harry Friedenwald.

Course in Diseases of the Ear, October 2nd to January 18th.
Dr. Downey.

Practical Course in Ophthalmoscopy, once weekly, in sections.
Drs. Fleck and Kemler.

FOURTH YEAR. *Clinics in Diseases of the Eye and Ear*, weekly.
Drs. Harry Friedenwald and Downey.

Ward Studies of ocular and oral lesions associated with general medical diseases, once weekly in sections. Drs. Clapp and Downey.

Dispensary Instruction, daily in small sections. Drs. Kahn and Knorr.

The courses in Ophthalmology and Otology are designed to familiarize the students with the common diseases of the eye and ear, their recognition and treatment, with a view to meet the needs of the general practitioner. Special emphasis is laid upon the relation between diseases of the eye and the ear and systemic diseases and diseases of other organs.

SCHEDULE

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FIRST YEAR SCHEDULE—FIRST SEMESTER.

Hours.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
A. M. 9 to 10. 10 to 11	Histology and Embryology Laboratory				Histology.	Dissecting
					Embryology.	
11 to 11.30	Transfer	Histology	Transfer.	Histology and Embryology Laboratory.	Transfer.	
11.30 to 12	11:30 to 12:30 Physiology		11:30 to 12:30 Physiology.		11:30 to 12:30 Physiology.	
P. M. 12 to 1.		Lunch and Transfer.		Lunch and Transfer.		
1 to 2.	Lunch.		Lunch.		Lunch.	
2 to 5.	Anatomy.		and		Dissecting.	

Classes in Anatomy, Dissecting, and Physiology at Lombard and Greene Streets; all other classes at Calvert and Saratoga Streets.

FIRST YEAR SCHEDULE—SECOND SEMESTER.

Hours.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
A. M. 8.30 to 9.30.	Histology and Embryology Laboratory				Bacteriology	Dissecting
9.30 to 10.30					Embryology	
10.30 to 11. 30.	Physiology.	Histology.	Physiology.	Bacteriology.	Physiology.	
11.30 to 12.00.	Lunch.					
P. M. 12 to 2.	Bacteriology.		Laboratory.			
2 to 2.30.	Transfer.					
2.30 to 5.30.	Anatomy.		and		Dissecting.	

Classes in Anatomy and Dissecting at Lombard and Greene Streets; all other classes at Calvert and Saratoga Streets.

SECOND YEAR SCHEDULE—FIRST SEMESTER.

Hours.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
A. M. 8.30 to 9.30	Physiology.	Laboratory.	Physiology.	Laboratory.	Pharmacology	Physiology.
9.30 to 10.30.	Biological Chemistry.	Physiology, Section A. Biological Chemistry, Section B.	Biological Chemistry.	Physiology, Section B. Biological Chemistry, Section A.	Biological Chemistry,	Pharmacology.
10.30 to 11.30.	Pathology.		Pharmacology		Pathology.	Pathology.
11.30 to 12.30.	Lunch.	Lunch and Transfer Period.				
P. M. 12.30 to 1.30.	Laboratory.	Laboratory:	Laboratory:	Immunology.	Immunology.	
1.30 to 2.30.	Pharmacology.	Immunology and Serology.	Immunology and Serology.	Surgery.	Medicine.	
2.30 to 3.30.						
3.30 to 4.30.	Neural Anatomy.	Surgical Anatomy.	Surgical Anatomy.	Surgical Anatomy.	Surgical Anatomy.	
4.30 to 5.30.						

Classes on Tuesdays, Wednesdays, Thursdays and Fridays from 12.30 to 5.30, at Calvert and Saratoga Streets; all other classes at Lombard and Greene Streets.

SECOND YEAR SCHEDULE—SECOND SEMESTER.

Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
A. M. 8.30 to 9.30.	Physiology.	Laboratory: Physiology, Section A. Biological Chemistry, Section B	Physiology.	Laboratory: Physiology, Section B. Biological Chemistry, Section A.	Pharmacology	Physiology.
9.30 to 10.30.	Biological Chemistry.		Biological Chemistry.		Biological Chemistry.	Pharmacology.
10.30 to 11.30.	Pathology.		Pharmacology.		Pathology.	Pathology.
11.30 to 12.00.	Lunch.					Lunch.
P. M. 12 to 1.	Pathological Laboratory.					Medical Clinic.
						Surgery.
1 to 2.	Laboratory: Pharmacology, Section A. Biological Chemistry, Section B.	Laboratory: Pharmacology, Section A. Physiology, Section B.	Physical Diagnosis.	Laboratory. Pharmacology Section B. Physiology, Section A.	Laboratory: Pharmacology, Section B. Biological Chemistry, Section A.	
2 to 3.						
3 to 4.						
4 to 5.						

All classes at Lombard and Greene Streets.

THIRD YEAR SCHEDULE.

Hours.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
A. M. 8.30 to 9.30	Medicine.	Pathology.	Therapeutics.	Surgery.	Pathology.	Surgery.
9.30 to 10.30.	Pediatrics.	Surgery.	Obstetrics.	Medicine.	Therapeutics.	Medicine.
10.30 to 1.30	Physical Diagnosis. Operative Surgery. Dispensary. Lunch and Transfer.	Physical Diagnosis. Operative Surgery. Dispensary. Lunch and Transfer.	Physical Diagnosis. Operative Surgery. Dispensary. Lunch and Transfer.	Physical Diagnosis. Operative Surgery. Dispensary. Lunch and Transfer.	Physical Diagnosis. Operative Surgery. Dispensary. Lunch and Transfer.	Physical Diagnosis. Operative Surgery. Dispensary. Lunch and Transfer.
P. M. 1.30 to 2.30.	Medical Clinic.	Obstetrics.	Section A. Clinical Medicine & Surgery, Gross Pathology, at Bay View	Obstetrics.	Neurology	Gynecology.
2.30 to 4.30.	Pathology. Laboratory.	Pathology. Laboratory.		Clinical Pathology Laboratory.	Clinical Pathology Laboratory	Section B. Clinical Medicine & Surgery, Gross Pathology, at Bay View.
4.30 to 5.30.	Preventive Medicine.	Eye and Ear— Oct. 2 to Jan. 18. Physical Therapeu- tics—Jan. 22-Feb. 22. Fractures— Feb. 26- May 31.	Section B. 1.30 to 2.30, Group Work in Ophthalmo- scopy.	Eye & Ear— Oct. 2 to Jan. 18. Physical Therapeu- tics—Jan. 22-Feb. 22. Fractures— Feb. 26 May 31.	Preventive Medicine.	Section A. 1.30 to 2.30, Group Work in Ophthalmos- copy.

From 10.30 A. M. to 1.30 P. M. the class is divided into two sections, one section reporting at Calvert and Saratoga Streets, the other at Lombard and Greene Streets.

Classes on Thursdays, Fridays, from 1.30 to 5.30, and Saturdays, 1.30 to 2.30, at Calvert and Saratoga Sts.

FOURTH YEAR SCHEDULE.

Hours.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
A. M. 8.30 to 11.00.	Ward Classes Medicine, Surgery, Obstetrics	Ward Classes Medicine, Surgery, Gynecology.	Ward Classes Medicine, Obstetrics, Surgery, 10- 11.	Ward Classes Medicine, Surgery, Gynecology,	Ward Classes Medicine, Surgery.	Ward Classes Medicine, Surgery, Gynecology.
11.00 to 12.00.	Orthopedic Surgery.	Medical Clinic (University) Surgical Path. (Mercy).	Clinical Pathological Conference.	Surgical Clinic	Medical Clinic.	Pediatrics Clinic.
P. M. 12.00 to 2.00.	Dispensary Lunch and Transfer.	Dispensary and Lunch.	Dispensary and Lunch and Transfer.	Dispensary and Lunch	Dispensary, Lunch and Transfer.	Dispensary Lunch and Transfer.
2.00 to 3.00.	Dermatology Clinic (Full class at Univ. Hosp.)	Neurology Clinic	Eye and Ear Clinic (Full class at Univ. Hosp.)	Genito-Uri- nary Clinic (Mercy) Obstetric Clinic (Uni- versity Hosp.)	Gastro- Enterology Clinic. (Full class at Univ. Hosp.)	Psychiatry Clinic (Full class at Univ. Hosp.).
3 00 to 4.30.	Ward Classes Medicine, Urology. Eye & Ear.	Ward Classes Medicine. Proctology. Pediatrics.	Ward Classes Medicine. Nose & Throat. Obstetrics.	Ward Classes Medicine. Orthopedic Surgery. Obstetrics.	Ward Classes Medicine. X-Ray. Neurology.	
4.30 to 5.30.	Preventive Medicine.	Gynecology.			Preventive Medicine.	

The Senior class is divided into two sections, which report, one at Lomard and Greene Streets, the other at Calvert and Saratoga Streets, for one semester each, rotate at the end of the first semester on January 29th 1924.

Each section of the class is divided into three groups—Medical, Surgical, and Special. These groups will rotate on the following dates:

FIRST SEMESTER

1st period, Oct. 2 to Nov. 4.

2nd. period, Nov 6 to Dec. 9.

3rd period, Dec. 10 to Jan. 27.

SECOND SEMESTER.

1st period, Jan. 29 to Mar. 3.

2nd period, Mar. 5 to Apr. 7.

3rd period, Apr. 9 to May 26.

THE UNIVERSITY HOSPITAL SCHOOL OF NURSING.

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Assistant Superintendent of Nurses—

STELLA U. RICKETTS, R.N.

Instructor in Nursing—

JANET NESBITT SMITH, R.N.

Instructor in Nursing and Supervisor of Wards—

EVA FISCHER, R.N.

*Instructor in Surgical Technique for Nurses**and**Supervisor of Operating Pavilion—*

ELIZABETH AITKENHEAD, R.N.

Instructor in Dietetics—

MIRIAN CONNELLY

Instructor in Massage—

EDITH WALTON

Instructor in Social Service—

GRACE PEARSON, R.N.

RUTH CLEMENTS, R.N.	Night Supervisor
MARY E. ROLPH, R.N.	Supervisor—Nurses Home
JANE MOFFAT, R.N.	Supervisor—Dispensary
FRANKIE MORRISON, R.N.	Head Nurse—Obstetrical Ward
MARGARET LAUPER, R.N.	Head Nurse—Men's Medical Ward
BESSIE MASTON, R.N.	Head Nurse—Men's Surgical Ward
ELEANOR BUTLER, R.N.	Head Nurse—Accident Ward
GRACE ELGIN, R.N.	Head Nurse—Women's. Medical, Surgical and Gynecological Ward
BLANCHE HOFFMASTER, R.N.	Head Nurse—Private Hall

LECTURERS FROM THE SCHOOL OF MEDICINE.

Anatomy and Physiology

JOSEPH W. HOLLAND, M.D.

Bacteriology

F. W. HACHTEL, M.D.

Materia Medica

C. C. HABLSTON, M.D.

GENERAL STATEMENT

Medicine

MAURICE C. PINCOFFS, M.D.

JOSEPH E. GICHNER, M.D.

H. M. STEIN, M.D.

LOUIS KRAUSE, M.D.

J. HARRY ULLRICH, M.D.

Pediatrics

CHARLES L. SUMMERS, M.D.

Psychiatry and Neurology

G. M. SETTLE, M.D.

Skin and Venereal Diseases

HARRY M. ROBINSON, M.D.

Otology and Ophthalmology

HARRY FRIEDENWALD, M.D.

Surgery

ARTHUR M. SHIPLEY, M.D.

Laryngology and Rhinology

E. A. LOOPER, M.D.

Gynecology

HUGH BRENT, M.D.

Orthopedic Surgery

R. TUNSTALL TAYLOR, M.D.

Obstetrics

H. L. DOUGLASS, M.D.

*Social Service**Special Lecturers.*

STUDENTS ENROLLED 1922-1923.

Seniors	22
Intermediates	36
Juniors and Preparatory	31
	—
Total	89

GENERAL STATEMENT.

The University of Maryland School for Nurses was established in the year 1889.

Since that time it has been an integral part of the University Hospital, coming under the same government.

The school is non-sectarian, the only religious services being morning prayers.

The University Hospital is a general hospital containing about 250 beds. It is equipped to give young women a thorough course of instruction and practice in all phases of nursing including experience in the operating room.

The school offers the student nurse unusual advantages in its opportunity for varied experience and in its thorough curriculum taught by best qualified instructors and members of the Medical Staff of the University.

ADMISSION—Requirements: In order to become a candidate for admission to the Training School, application must be made in person or by letter, to the Superintendent of Nurses. An application by letter should be accompanied by a statement from a clergyman testifying to good moral character and from a physician certifying to sound health and unimpaired faculties. No person will be considered who is not in a good physical condition between the ages of 18 and 35. She must also show that she has a High School education or its equivalent. This is the minimum requirement, for women of superior education and culture are given preference provided they meet the requirements in other particulars.

The fitness of the applicant for the work and the propriety of dismissing or retaining her at the end of her term of probation, is left to the decision of the Superintendent of Nurses. Misconduct, disobedience, insubordination, inefficiency, or neglect of duty are causes for dismissal at any time by the Superintendent of Nurses, with the approval of the President of the University.

Time: Students are admitted in February, June and September.

HOURS ON DUTY: During the probation term the students are on duty not more than six hours daily. During the Junior, Intermediate and Senior years, the students are on eight hour day duty, with six hours on Sunday and Holidays, and ten hour night duty. The night duty periods are approximately two months each, with one day at the termination of each term for rest and recreation. The period of night duty is approximately five or six months during the three years.

SICKNESS: A physician is in attendance each day, and when ill all students are cared for gratuitously. The time lost through illness in excess of two weeks, during the three years must be made up. Should the authorities of the school decide that through the time lost the theoretical work has not been sufficiently covered to permit the student to continue in that year, it will be necessary for her to continue her work with the next class.

VACATIONS: Vacations are given between June and September. A period of three weeks is allowed the student at the completion of the first year and four weeks at the completion of the second year.

EXPENSE: A student receives her board, lodging and a reasonable amount of laundry from the date of entrance. During her period of probation she provides her own uniforms made in accordance with the hospital regulations. After being accepted as a student nurse she wears the uniform furnished by the hospital. The student is also provided with textbooks and in addition to this is paid five dollars (\$5.00) a month. Her personal expenses during the course of instruction and training will depend entirely upon her individual habits and tastes.

GENERAL PLAN OF INSTRUCTION.

The course of instruction covers a period of three years.

JUNIOR YEAR.

First Term.

The Junior Year is divided into two periods. The first term is the preparatory period (4 months) and the second the junior term.

In the preparatory term the student is given practical instruction in:—

- I. The making of hospital and surgical supplies. The cost of hospital materials, apparatus and surgical instruments.
- II. Household economics and the preparation of foods.
- III. The hospital out-patients department and dispensary.

During this term the practical work is done under constant supervision, and teaching is given correlatively.

Excursions are made to markets, hygienic dairies, linen rooms, laundry and store room.

The maximum number of hours per week in formal instructions divided into laboratory and lecture periods is thirty hours and includes courses in Anatomy and Physiology, Dietetics, Materia Medica, Personal Hygiene, Drugs and Solutions, Household Economics, Short course in Ethics and History of Nursing.

At the close of the first half of Junior Year the students are required to pass satisfactorily both the written and oral tests, and failure to do so will be sufficient reason to terminate the course at this point.

SUBSEQUENT COURSE.

The course of instruction, in addition to the probationary period, occupies two and three-fourths years, and students are not accepted for a shorter period.

After entering the wards, the students are constantly engaged in practical work under the immediate supervision and direction of the head nurses and instructors.

JUNIOR YEAR.

Second Term.

During this period the students receive theoretical instruction in Massage, Bacteriology, General Surgery and Introductory Medicine. Practical instruction is received in the male and female, medical, surgical and childrens' wards.

INTERMEDIATE YEAR.

During this period the theoretical instruction includes Pediatrics, General Medicine, Infectious Diseases, Obstetrics, Gynecology and Orthopedics. The practical work provides experience in the nursing of obstetrical and gynecological patients, in the operating rooms and the out-patient department.

SENIOR YEAR.

During this period the student receives short courses of lectures on subjects of special interest. This includes a consideration of the work of institutions of public and private charities, of settlements, and various branches of professional work in nursing.

Experience is given in executive and administration work to those showing exceptional ability in the Senior Year. With these students conferences are held on administration and teaching problems.

EXAMINATIONS: At the end of the first half year, students are examined in Anatomy, Physiology, Materia Medica, Dietetics and Hygiene. At the end of the first year in Surgery and Bacteriology.

During the second year they are examined in Urinalysis, Massage, Gynecology, General Medicine, Infectious Diseases, Obstetrics and Pediatrics. At the end of the third year the final examination in Nervous and Mental Diseases, Diseases of Special Senses, Venereal Diseases, Ethics and History of Nursing.

Examinations—which are both written and oral—include practical tests, and the standing of the student is based upon the general character of work throughout the year, as well as the results of the examinations. Students must pass upon all subjects before entering upon the work of the following year.

GRADUATION: The diploma of the School will be awarded to those who have completed satisfactorily the full term of three years and have passed successfully the final examinations.

SCHOLARSHIPS: One scholarship has been established by the Alumnae of the Training School. It entitles a nurse to six weeks course at Teachers College, New York. This scholarship is awarded at the close of the third year to the student whose work has been of the highest excellence, and who desires to pursue post-graduate study and special work.

An Alumnae Pin is presented by the Women's Auxiliary Board to the student who at the completion of three years shows exceptional executive ability.

GRADUATING CLASS.

Miss Helen Louise Dunn...	Maryland	Miss Kathryn Elizabeth Horst	
Miss Helen Stedman Teeple	Maryland		Maryland
Miss Wilhelmina Neville McCann		Miss Marie E. Chalmers Schroeder	
	Maryland		Maryland
Miss Ida Marie Nagel....	Maryland	Miss Evelyn Pearl Graham	
Miss Dorothy Lucille Hazen			Pennsylvania
	Pennsylvania	Miss Margaret May Stailey	
Miss Irene Agnes Maxwell	Maryland		Pennsylvania

Miss Ruth Winifred Boyd...	Maryland	Miss Mary Margaret Herrington	
Miss Kittie Rowland Toms.	Maryland		Pennsylvania
Miss Martha Marie Hoffman		Miss Lillie Ruth Hoke.....	Maryland
	Maryland	Miss Ruth Anna White.....	Maryland
Miss Kathryn Ames Reade...	Virginia	Miss Vilma Katherine Kish	
Miss Regina Medora West			New Jersey
	West Virginia	Miss Anna Elizabeth Pratt.	
Miss Hulda Famous Harkins	Maryland		Maryland

THE MERCY HOSPITAL TRAINING SCHOOL FOR NURSES.

The Mercy Hospital Training School for Nurses, conducted by the Sisters of Mercy, was organized and incorporated under the general laws of the State of Maryland in 1899. Its first students were graduated in 1901; and on the passage of the bill for registration in 1904, the Sisters of Mercy, connected with the Hospital service, received certificates as registered nurses.

The Training School was affiliated with the Board of Regents of the State of New York in 1906; and in the same year the Alumnae Association was incorporated, having been previously connected with the Associated Alumnae of the United States.

The graduates, as active members, have been much interested in the movements of the Maryland Association of Graduate Nurses, to whom they have given every encouragement to uplift the profession in its many works of district nursing, tuberculosis campaign, Red Cross movements, etc.

The requirements for entrance are: Highest moral standing, health, intelligence and a High School education or its equivalent. The age limit is twenty to thirty-five years.

After a three months' probation, candidates, if they possess the necessary qualifications, are admitted to the Training School proper, receiving five dollars a month wherewith to secure text-books, etc., the education they receive being considered their compensation. The right is reserved to dismiss pupils for any cause which may be deemed sufficient by the Sister Superior or Superintendent.

The course of training comprises three years of theory and practice. The clinical advantages are exceptional. The medical, surgical, orthopedic, gynecological, obstetrical, children's and dietetic departments give valuable practical experience. The

nurses are taught the theory of nursing by class recitations and demonstrations by efficient Sister instructors. Supplementing this training is a course of lectures from the professors of the University of Maryland School of Medicine, who are untiring in their efforts to keep the School abreast with modern scientific developments.

GRADUATING CLASS.

HELEN ELIZABETH BECKER	Pennsylvania
MARGARET ELIZABETH BOYLAN	Pennsylvania
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NELLIE MARIE CASEY	Virginia
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CATHERINE LOUISE CONROY	Maryland
FLORENCE MARY COOLAHAN	Maryland
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MARY AGNES WHARTON	Trinidad
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ENDOWMENT FUND.

The following, all Alumni of the University, constitute the Board of Trustees of this Fund:

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This Board is incorporated by act of the Legislature of the State, its legal title being "The Trustees of the Endowment Fund of the University of Maryland," and is independent and self-perpetuating, filling itself any vacancies. Its powers are limited to the expenditure of the interest derived from the fund, which is to be

applied in the discretion of the Board for the benefit of the University. Contributions, donations and bequests are solicited from Alumni and friends. They may be made to the general or University Fund, to the Medical Fund or to any other department of the University. If intended for the School of Medicine, they may be given to the general medical fund or to some special object, as building, research, library, pathology, hospital, publication, laboratories, gymnasium, scholarship, medal, prize, etc., in which case the wishes of the donor will be strictly regarded. Attention is invited to the "Charles Frick Research Fund," already established in memory of that distinguished investigator. Checks should be made payable to B. Horace M. Davis, D.C.D., Treasurer, Professional Building, Baltimore, Md.

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To School Of Medicine.

I give, devise and bequeath to the Regents of the University of Maryland a corporation incorporated under the laws of the State of Maryland, for the benefit of the Faculty of Physic-----

(Here state amount or describe property).

To Endowment Fund.

I give, devise and bequeath to the Trustees of the Endowment Fund of the University of Maryland, a corporation incorporated under the laws of the State of Maryland, for the benefit of the Faculty of Physic-----

(Here state amount or describe property).

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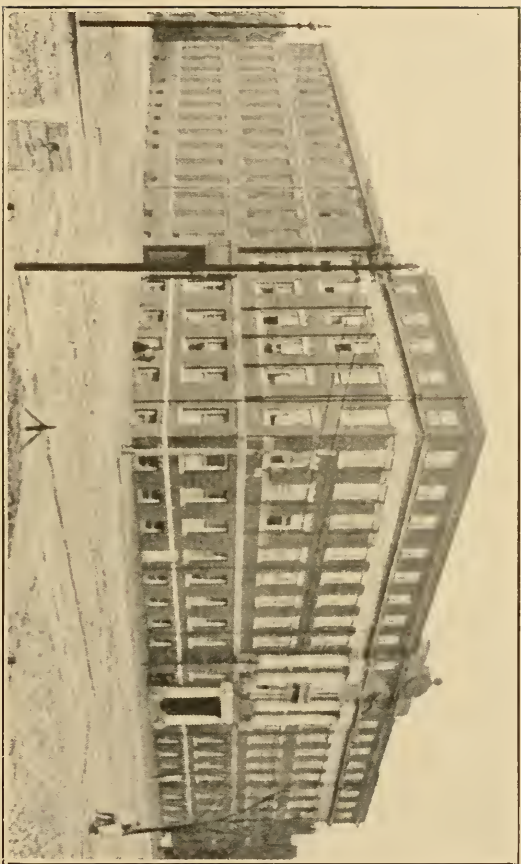
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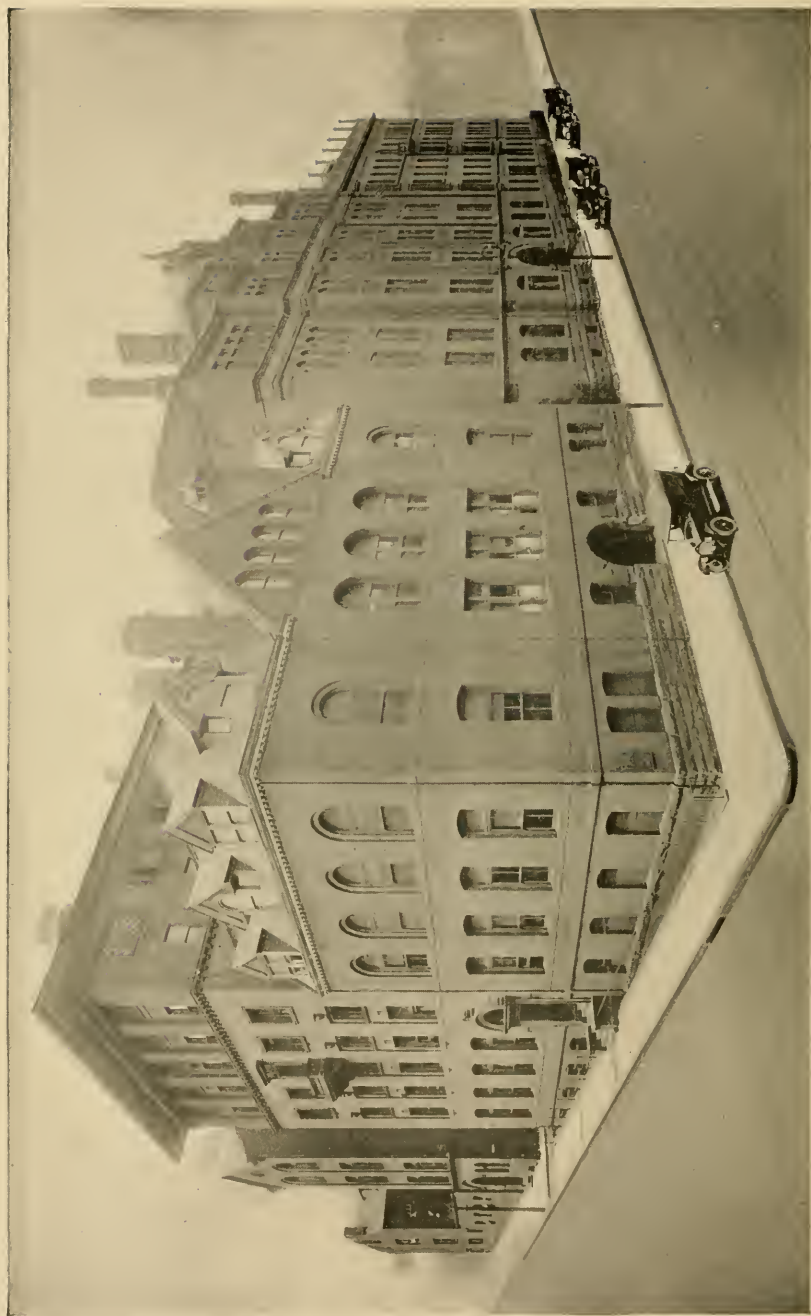
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COLLEGE OF PHYSICIANS AND SURGEONS AND MERCY HOSPITAL.

UNIVERSITY OF MARYLAND
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No. 2

THE METHOD OF PREVENTING THE REMOVAL OF
TONSILS AND ADENOIDS AND ITS USEFUL-
NESS IN THE TREATMENT OF NOSE AND
THROAT DEFECTS IN GENERAL
(EWENS' UVULECTOMY)

By ARTHUR E. EWENS, B.S., M.D., ATLANTIC CITY, N. J.

For many years the writer has shared the sentiments of that group of the profession which does not altogether endorse many of the surgical procedures commonly employed in nose and throat practice—notably the removal of adenoid tissue from the oro- and naso-pharynx and destructive operations within the nasal cavities. That these procedures are frequently attended by negligible results is well known, and it is not unusual to witness effects which seem to come within the category of positive harm. It is not prejudice, however, that is even partly responsible for the presentation of this paper, although it is hoped that the observations herein reported, when verified by the profession at large, will constitute an effective plea for greater conservatism in the treatment of diseases of the nose and throat.

Whatever may be the line of reasoning that justifies the present-day wholesale removal of tonsils and adenoids, one very important element in its consideration is apparently almost ignored, i.e., the probable function of the structures so readily sacrificed. A very natural response to this criticism would be that the physiology of the tonsils has never been definitely agreed upon, and that, even if their exact function were known, it would have little or no weight in the presence of a pathological condition demanding surgical removal. To uphold their contention my opponents might cite the approved treatment of a diseased appendix, and

yet this, in reality, is not a parallel at all; because there is far more room for conjecture as to some important function of the tonsils and, on the other hand, less evidence of a comparable danger from diseased tonsils that remain undisturbed. It has always seemed to me that tonsils, because of their histology, their known relationship with the cervical glands, and the obvious need for an abundance of lymphatic protection in the exposed avenue that serves both respiration and deglutition, should be regarded unquestionably as important units of the general lymphatic system. If this be true, it would seem to place the promiscuous excision of lymphoid tissue from the throat upon an extremely unscientific footing.

Experience of recent years has convinced me not only of a vital need for the lymphoid structures with which the upper respiratory tract is so generously provided, but that it is in the splendid performance of their important task that they become surcharged with the products of bacterial activity and themselves ultimately infected. Hence the logical question seeming to confront us is how to lessen the burden put upon these barriers to infection, and not how to get rid of the barriers themselves simply because they have suffered (perhaps only temporarily) through the exercise of their protective function. Most certainly we would not direct local treatment, surgical or otherwise, to an axillary or inguinal adenitis without first attempting to determine its probable origin in some extraneous focus of infection. Why, then, should we not, by analogy, be induced to reason in a similar manner when confronted with the involvement of glandular structures in the throat? It is true, of course, that glands communicating with, and directly exposed to, mucous surface would be much more susceptible to primary infection than glandular structures not so situated. However, one of the purposes of this paper is to show that a large majority of infections occurring in tonsils are probably not distinctly primary, but find their way into the tonsillar substance and peritonsillar tissue presumably through lymph-channels—the infectious material being conveyed from a broad expanse of catarrhal mucous membrane, and not necessarily from that portion immediately covering the gland.

A series of approximately two thousand cases has revealed to the writer the rather startling fact that a large share of blame for protracted naso-pharyngeal catarrh, tonsillitis, chronic hypertrophy and its various obstructive manifestations in both the throat and nose can be squarely placed upon that apparently innocuous appendage—the uvula. At first sight this claim may seem to border upon absurdity, but it gives promise of becoming an accepted clinical fact.

Circumstances antedating the investigation that warrants the foregoing statement were quite accidental. Their recital should not be omitted inasmuch as they contribute the very foundation and incentive for all that is embodied in this report. As far back

as 1905 I became enthusiastic over the excellent results obtainable from uvulotomy as a measure for the relief of aggravated and protracted coughs, especially that type commonly known as the "cigarette cough." Its earlier employment was restricted to those cases in which the uvula was extremely elongated, but it subsequently proved equally efficacious in many instances where elongation was not so pronounced. The number of cases so treated, many of them amongst the transient population of Atlantic City, grew in the course of years to a rather substantial total. From time to time there were renewals of acquaintance with some of these out-of-town patients, and occasionally there would be one who would show a disposition to exaggerate the benefits experienced during the years following the amputation of the uvula. Statements of this character did not engage any serious attention, however, until about five years ago. The ensuing investigation had not progressed very far when it became apparent that these supposed "exaggerations" possessed a real semblance of truth and value.

As this investigation advanced the field of application for "uvulectomy" steadily broadened until, in my hands at least, it has attained a scope amazingly inconsistent with its lack of support in medical literature (The term "uvulectomy", in preference to uvulotomy, is used advisedly, removal of the uvula in its entirety being the procedure advocated).

As the skepticism in store for this initial publication of results from "complete uvulectomy" can hardly be lessened by presenting detailed case-reports, only a summarized account of its observed effects and usefulness will be attempted, as follows:

1. It never fails to effect prompt improvement of catarrhal conditions in the throat and nose to a degree that is plainly discernible, and there are few coughs of any description that do not yield, in some measure at least, to complete uvulectomy.

2. Susceptibility to common "colds", acute pharyngeal and laryngeal inflammations, tonsillitis and quinsy, so pronounced in many individuals, is decidedly lessened.

3. Chronic hypertrophy of the faucial tonsils, and other susceptible lymphoid structures of the pharynx, is materially reduced in many cases, especially during early childhood, and always to a degree that would compel hesitancy in resorting to popular surgical measures. In conjunction with this observation it has been the writer's pleasure to repeatedly witness relief from tinnitus aurium, as well as marked improvement of hearing when the impairment was ascribable solely to obstruction of the Eustachian orifices.

4. Nasal obstruction, due to encroachment of the turbinates, whether associated with marked deformity of the septum or not, is usually relieved to a degree that surpasses the benefits ordinarily accruing from operations within the nasal cavities. Co-

incident with this effect there is often relief from associated sinus symptoms. (Experience to date justifies reference only to the frontal and maxillary sinuses).

5. Mention should be made of the cases (somewhat too numerous to be regarded as mere coincidences) in which subacute arthritis, postinfluenzal neuritis, and myositis that had resisted previous treatment, showed improvement or completely disappeared.

6. A response has been observed in a few cases of bronchial asthma and hay fever, but results on the whole have been rather disappointing. The effect in certain cases of so-called "cardiac asthma" has been most gratifying. Where coughing has been a conspicuous symptom, although presumably of cardiac origin, it has yielded sufficiently to relieve the over-taxed heart and bring about a decided abatement in the dyspnoea.

7. Correction of that nocturnal nuisance—"snoring,"—can usually be effected.

8. Anaemia of obscure origin, and rebellious to treatment—when associated with pronounced pharyngeal catarrh and tonsillar involvement—often responds. This observation has been remarkably constant in children.

9. In only a limited number of cases of pulmonary tuberculosis has the consent of the patient to the proposed uvulectomy been gained, but in every instance where cough was a troublesome symptom results have more than justified the measure employed. This phase of the subject is intensely interesting because of the marked general improvement in these patients consequent upon the abatement of aggravated coughing. The extreme frequency with which this type of tubercular patient presents an angry, elongated uvula, and the fact that the history of a cough in these cases so often antedates all of the other classical evidences of the disease, opens a wide field for conjecture and investigation. In the light of future disclosures it is my opinion that an "abnormal uvula" will be assigned a conspicuous place among the aggravating, if not the predisposing, causes of pulmonary tuberculosis.

The apparent extravagance of the foregoing statement may seem inconsistent with the promulgation of a new subject, and will naturally give rise to the question that has already been asked, viz.—"Does the originator admit that such a thing as a 'normal' uvula exists"? In answer to this I can only say that the uvula's demonstrated potency for harm precludes an admission that any catarrhal throat can contain a normal uvula, whether appearances clearly denote abnormality or not. My own experience impels me to prophesy that the removal of uvulae from the throats of children will some day become a common practice—perhaps a routine comparable to vaccination. The most skeptical will be speedily converted after a practical demonstration of its effects upon the characteristic condition in early childhood that nowadays demands the removal of tonsils and adenoids.

It is probable that pathological investigation along the lines suggested by this paper will disclose definite reasons for the clinical observations reported. However, until this more exact explanation has been revealed, it shall be my opinion that the uvula gives rise to disturbances in the throat and nose for the following reasons:

In the first place the uvula is obviously a source of mechanical irritation when elongated to an extent that permits it to drag upon the tongue, or upon the posterior pharyngeal wall when the individual is recumbent, and particularly so when repeatedly subjected to the harsh treatment it receives in the act of snoring.

If its vascularity is an index to its vitality and resistance to infection, it possesses very little, because in the removal of over two thousand the control of hemorrhage has not become necessary in a single instance, and it is exceptional to witness a persistence of oozing for as much as five minutes. Many uvulectomies are accompanied by the loss of practically no blood at all.

Its anatomical location and conformation keep it supplied every minute with from sixteen to twenty-four fresh instalments of foreign material, bacterial and otherwise, with which the atmosphere of a humid climate abounds. Presenting, as it does, a moist, warm, pendulous surface, feebly supplied with blood in contrast with adjacent structures, it provides an ideal bacterial nidus.

A microscopic examination after removal shows it to be composed mainly of reduplicated, bloodless mucous membrane exhibiting marked signs of thickening, and enclosing but little muscle tissue, the latter being found chiefly at its extreme upper portion. Its gross appearance would enable no one to regard it as a healthy piece of tissue in any instance where removal has been deemed expedient.

After giving due consideration to these points, it should not greatly tax the imagination to form some understanding of the potentiality for harm residing in this tiny and superfluous bit of tissue. The bacteria that it incubates spread by direct continuity to adjacent structures, and remote effects are produced through the medium of lymphatic and venous absorption from a broad surface thus involved. The nasal cavities, pharyngeal vault, faucial and lingual tonsils and the larynx are none of them very distantly removed from this nidus of infection.

In the minds of most people, including the medical profession, there seems to be an inherent idea that an indispensable utility resides in the uvula. Despite the obviousness of its real function, it does not serve any vital necessity. This has been clearly established by a wide experience, and as testimony to the writer's conviction in this matter it might be stated that he removed his own uvula quite some time ago.

Disappointment is apt to follow an attempt to determine in any given case "how much" of the uvula should be removed. No

procedure is recommended that does not contemplate removal in toto.

In the series of cases subjected to this method of treatment the extremes of age have been "sixteen months" and "eighty-three years." In children under six years general anaesthesia is usually required, but the operation can be made practically painless by the topical application of cocaine. The rapidity of absorption and depth of effect here observed would seem to emphasize the possibilities from excessive bacterial activity upon the mucous surfaces of the throat.

In the writer's practice "uvulectomy" is done as follows: After removing mucus from the surface of the uvula and surrounding parts by spraying with some suitable detergent, a four per cent aqueous solution of cocaine hydrochloride, in cautious amounts, is repeatedly applied, first to the uvula anteriorly and posteriorly, then to the soft palate immediately above the margins of the posterior pillars of the fauces. Firm pressure of the swab into the angles of junction between the posterior pillars and the uvula has been found to facilitate anaesthesia, which is usually complete in from five to eight minutes. During this preliminary the patient is permitted to gain some experience in manipulating the tongue-depressor, this anticipation having proven distinctly advantageous. With the tongue held out of the way by the patient the uvula is grasped with a pair of Noyes' alligator-jaw forceps near the level of its junction with the posterior pillars, and moderate traction made downward and slightly toward the operator. Severance is then effected with curved tonsil-scissors (points down) at a level that promises to leave an uninterrupted arch to the resulting margin of the soft palate. Retraction of the mucous membrane usually leaves, however, a slight protrusion of muscular tissue beyond the palatal arch. After the patient has had a few swallows of cold water this tissue is drawn down and excised, and any other observed unevenness is similarly corrected.

After-treatment involves no difficulties, and few patients experience any apparent need of it after the third or fourth day. Healing is usually complete within two weeks. Immediately after operation it is advisable to caution the patient against the added discomfort occasioned by food or drink that is hot, highly seasoned, acid or extremely sweet. The routine practice has been to prescribe "mentholated throat tablets with cocaine," to be dissolved on the tongue almost continuously for the first twenty-four or forty-eight hours. After that a gargle that is diluted with water, equal parts, and used every hour or two, is ordered as follows: Phenol, 10 minims; Glycerine, half an ounce; Alkalol, an ounce and a half; Dobell's Solution, sufficient to make eight ounces.

REPORT OF TWO CASES OF STRANGULATED SLIDING HERNIA OF THE URINARY BLADDER.

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Sliding herniae through the inguinal route are of the rarer forms of inguinal hernia. The sigmoid, caecum, tubes and ovaries in the female and the urinary bladder may be the presenting parts, in sliding inguinal hernia. It is of the latter that I wish to add to the literature two more cases.

During my service as Resident at the University Hospital, it was my privilege to have two cases of inguinal herniae in which the entire bladder was strangulated. Both cases were in old men who had a history of herniae since childhood, with, at times, urinary disturbances. Both cases were strangulated about fifteen hours. At operation it was very difficult to tell with what tissue I was dealing until I found a firm, hard, round mass running along to the outer side, and which proved to be the ureter. I traced this in each case to the protruding mass and found the entire bladder making up the strangulated mass. Of course these two cases were not completely strangulated in the sense that the blood supply was completely cut off, but they were so tightly held as to be irreducible.

The operative procedure in one case was after the method of Ferguson, the other a modified Halsted, suturing the conjoined tendon and fascia of the external oblique beneath the cord to the shelving portion of Poupart's ligament. It is now almost two years since operation. In the case operated on by the Ferguson method there has been a recurrence, the other has been a complete recovery.

AN ANALYTICAL STUDY OF EXTRACRANIAL ANEURISM OF THE INTERNAL CAR- ARTERY OF TRAUMATIC ORIGIN.

By NATHAN WINSLOW.

From the Surgical Department of the University of Maryland.

This, my fourth paper* on aneurism of the extracranial portion of the internal carotid artery is devoted to those cases reported in the literature as of traumatic origin. A striking feature of this series is the relatively large number of aneurisms of this vessel reported as following gunshot injuries incurred either in the Balkan or the World Wars. As a result of these struggles 14 case reports have found their way into print, whereas so far as I could determine the internal carotid artery has escaped this lesion in previous wars. This immunity has been explained by the blunter shape of the bullet in days gone-by and the slower speed at which it travelled. On the other hand most of the cases occurring in civil practice have been the result of knife or puncture wounds. No matter how produced, traumatic aneurism of the internal carotid has the same practical interest to the surgeon and the physician as the types already discussed, for like them it has on occasion been mistaken for abscess and lanced, with unfortunate results. Of no less import is the tendency of this aneurism if left untreated to rupture spontaneously with the premature death of the patient. Of the treated cases, a fair proportion are saved; of the untreated, an exceedingly high mortality rate is to be expected.

The cases number 26, of which 12, or 46.15% recovered; 13, or 50% died, and 1, or 3.85% was discharged unimproved. Twenty-four were males; 1 a female. In 1 the sex was not mentioned. The ages were 6, 17, 19, 20, 21, 23, 23, 25, 28, 28, 29, 32, 35, and 37 years respectively. In 9 the patients were merely mentioned as soldiers, in one as a sailor. Presumably these men were young adults. In one no clue to the age was given. The youngest patient was 6, and the oldest 37 years respectively. A noticeable feature of this series is the comparative youth of the victims. As one would naturally suppose from males being more subject to injury, the men far outnumber the women, being in the proportion of 24 to 1. Twenty were operated upon, with 12, or 60% cures; and 8, or 40% deaths. Six were not operated upon, with 5, or 83.33% deaths; the other case, Orth's patient, refused operation, passed from under his care and was presumably lost sight of as no mention was made of the ultimate outcome (Table 2). The right side was affected 14 times, the left, 6. In 6 instances the side upon which the lesion was located, was not mentioned. The aneurism

* First instalment, Bulletin School of Medicine, University of Maryland, 1922, vii, 84.
Second instalment, Bulletin School of Medicine, University of Maryland, 1923, vii, 125.
Third instalment. Bulletin School of Medicine, University of Maryland, 1923, vii, 171.

was attributed to puncture wound, 1; stab wound, 4; pistol or bullet wound, 8; missile wound, 1; shrapnel wound, 1; shell-splinter, 2; severe injury received two years previously in a bicycle collision while coasting (Booth), 1; not mentioned, 7. Six of the latter were soldiers, and the probability is that in these the primary injury was a gunshot wound. The deaths in the operative cases were assigned to cerebral softening, 3 times; sepsis, once; softening of brain and pneumonia, once; on operating table while closing wound, once; secondary hemorrhage, once. The non-operative deaths were attributed to spontaneous hemorrhage, twice; mistaken for abscess, lanced, uncontrollable hemorrhage, once; thrombosis of opposite vertebral following ligation of the vertebral, once; softening of the brain, once.

The vessels ligated and the results were, as follows:

Common carotid artery; 9 times, with 4 cures and 5 deaths.

Common carotid, internal carotid—above and below sac, with opening of sac; once, with cure.

Common carotid, external carotid, internal carotid, superior thyroid, extirpation of sac; once, cured.

Common carotid internal jugular vein; once, cured.

Common carotid and internal carotid; once, cured.

Common carotid, incision and packing of sac; once, cured.

Common carotid, later external and internal carotids; once, cured.

Internal carotid; with one recovery and one death.

Internal carotid above and below sac, extirpation of sac; once died.

Internal carotid, suture of proximal segment, double ligation internal jugular vein; once, cured.

Internal carotid above sac, common carotid below, internal jugular vein, once, cured.

Lee 15 days after the accident noticed a swelling in the hard and soft palate which he mistook for an abscess, lanced it and was surprised with a gush of bright red arterial blood, accompanied with a peculiar noise. All attempts to stem the flow was prevented by the struggles of the patient who died in a few moments. Booth's case was seen by a number of physicians, most of whom were inclined to the diagnosis of peritonsillar abscess. There was never any apparent pulsation in the lesion which was hard and firm to the touch. A profuse hemorrhage proved fatal in a few minutes.

The history of traumatic aneurism of the cervical portion of the internal carotid artery would be incomplete were the following cases passed by in silence. The reports themselves will indicate the reason for their deletion. The case reported by Matas (New Orleans Med. and Surg. Jour., 1894, XXII, 245) as a fibro-adenoma of the tonsil, was considered by his colleagues, Logan and Souchon,

TABLE NO. 1

No.	SURGEON, REFERENCE	SEX, AGE, SIDE	DURATION	OPERATION, DATE	CURED	DIED, CAUSE	REMARKS
1	Mettauer: Amer. J. I. of the Med. Sciences, 1849, n.s., XVIII, 351.	M 25 R	6 weeks	Lig. C.C.A. 3-8-1842.	---- ----	12 days cere- bral softening.	Lesion was due to a puncture wound. The patient stood the operation well. When the ligature was tied the man became faint, but reacted quickly under appropriate treatment. About 12 o'clock the left leg and arm were paralyzed. He was delicious and complained of intense headache. These symptoms increased in severity until the 12th day, when he died. Autopsy showed softening of the right hemisphere of the brain; nothing else of moment.
2	Briggs: Nashville Jt. Med. and Surg., 1871, n.s. VII, 102. L	M 23 L	6 weeks	Lig. of C.C.A. and I.C.A. above and below sac, opening of sac, gauze pack. 2-23-1871	Yes	-----	The lesion was the result of a stab wound incurred about the middle of Jan. 1871. The patient was admitted to the hospital Feb. 8, for a tumor in the left carotid region. The swelling was the size of a fist, circumscribed, smooth, strong, expansive pulsation, volume lessened by pressure on the common carotid, bruit heard, difficulty in swallowing. Pressure was tried to no avail, the mass enlarging daily, so a knife was thrust into the most prominent part of the aneurism and a finger quickly inserted into the hole. The opening in the sac was then enlarged and the hem. controlled by a gauze pack, the common carotid sought and tied; as the vessel still discharged blood, the internal carotid was ligated on both the central and peripheral ends and the wound closed. The patient bore the operation well and did not exhibit any unpleasant symptoms. When last seen in 1886 he was entirely well.
3	Prewitt: Trans. Amer. Surg. Assoc., 1886, IV, 233.	F 17 R	4 months	Lig. C.C.A. 4-4-1885.	----	25 days sepsis.	Hemorrhage from the external wall of the sac, convulsions on the 23rd day after the operation, repeated from then to death. Autopsy confirmed the diagnosis of an aneurism of the extracranial portion of the internal carotid artery.
4	Duchamp: La Loire med, 1891, XVII, 113.	M 32 R	8 days	Lig. C. C. A. 8-27-1891. Lig. E.C.A. and I.C.A. 9-5-1891.	Yes	-----	On August 20, 1891, a man who had received a pistol wound in the mouth was admitted to the hospital. The wound of entrance was above and outside of anterior pillar. There was slight swelling but no pulsation. At end of eight days the tumor bulged and had the appearance of a large abscess, but expansile pulsation discernible to both sight and touch, and arrested by pressure on the common carotid, indicated its nature. The situation was dangerous, especially as the man had had several slight hemorrhages from the mouth. With the tying of the artery, pulsation in the sac was arrested immediately only to return in three days; and by the eighth day after operation was as violent as ever, so the wound was reopened and extended to permit uncovering of the external carotid which was in turn tied, but the movement in the sac not being entirely controlled, the internal carotid was unbared and a thread thrown around it. After the completion of the operation the patient's mouth was opened to view the result, when there was a spurt of blood from the orifice of the bullet. A finger was hurriedly inserted into the rent in the sac until it could be plugged with gauze. Happily, no further bleeding occurred. There was no cerebral manifestations after either operation. The patient was alive seven years later.
5	Ciechomski in Lewenstern: Gaz. Lekarska 1901 28, XXI, 658. Trans- lated for this paper by A. Kunkowski, Univ. of Maryland.	M 29 R	1 day	Lig. C.C.A. 8-20-1897.	Yes	-----	The patient was cut with a knife in the right side of the neck in August 1897. There was a profuse hemorrhage from the wound which was controlled by ligation. The following day there appeared at the side of the injury an increasing hematoma which interfered with speech. Fourteen days later the man entered St. Koch Hospital. On first sight the lesion resembled a parotitis, but on closer observation it was plainly evident to both sight and touch that the swelling was expansive. It was hard and painful, and of such volume as to distort the features. A slight thrill was felt. The muscles served by the facial nerve were

paralyzed. In protruding, the tongue the tip deviated to the right. The right vocal cord was out of commission. Compression of the common carotid caused complete arrest of the pulsation. On inspecting the throat, the right tonsil was noticed to be pushed inwards to the mid line of the fauces and appeared red and swollen. On palpating the mass it was soft and pulsating in an expansile manner. Drinking and eating were almost impossible. He could speak only in a whisper. These findings led to a diagnosis of aneurism of the internal carotid artery. Three days later the swelling had increased to such a degree as to render even the swallowing of water impossible. So on August 20, 1897, Cichomski ligated the C.C.A. on a level with the thyroid cartilage. With the tying of the ligature all motion of the mass ceased, the swelling gradually subsided, swallowing became possible, the voice returned and the patient was discharged about the middle of September, 1897, well. The post-operative observations extended over a period of three years. At that time the man was in good health. There was no evidence of the aneurism and the paralysis had completely disappeared. Speech was clear.

Man received a knife wound in the left side of the face Jan. 18, 1904. Soon after the injury he could not talk, having almost lost his voice. He experienced a severe subcutaneous cervico-facial hemorrhage. After an hour symptoms of laryngeal stenosis supervened and the voice became husky, in fact almost aphonic. Breathing was embarrassed to a moderate degree. Laryngoscopic examination showed a paralysis of the left vocal cord. There was also paralysis of the hypoglossal and the tongue was protruded with deviation to the left. The tonsil was pushed inward to the median line by a bulging of the pharyngeal wall. February 24, the patient felt pulsation in the submaxillary region. Bi-manual examination showed a fluctuating and compressible tumor. On compressing the primary carotid, pulsation disappeared and the mass was noticeably diminished. With the ligation pulsation ceased. The patient was dismissed May 2, 1904. The mass had completely disappeared. There was no detectable pulsation. The nervous phenomena persisted however.

The writer gave practically no data concerning this case. The victim was a Serbian soldier wounded in the Balkan War, 1912-1913. Immediately after the operation the patient lost consciousness, then pneumonia developed with death in four days. Autopsy showed a softening of the brain and pneumonia.

Patient, a soldier, was wounded in battle June 25, 1914. He arrived at the hospital November 20, 1914. Besides other numerous wounds, he had received a shot in the left side of the neck. On admission the wound had entirely healed, but one could observe in the upper part of the neck a pulsating tumor which extended from the mastoid bone to the superior border of the thyroid cartilage. The integument was thin but intact. The pulsation was expansile, and the overlying soft parts were raised with each beat of the artery. The mass was irregularly round and slightly reducible on pressure. Bruit was present. The sterno-cleido-mastoid and trapezius muscles of the left side were paralyzed, also, the left vocal cord and the left half of the tongue. The latter organ deviated to the left when protruded. A thread was thrown around the internal carotid at its origin and tightened, and the sac opened and emptied of all clots. As arterial blood now escaped at the upper end of the damaged vessel, it was picked up in artery clamps, and ligated. The sac was now dissected free from its bed and delivered. During the extirpation it was discovered

6	Bobbio: II. Policlinico, Roma, 20 1906, XIII, sez. chir., 50.	M 20 L	1 day	Lig. C.C.A., 3-3-1904.	Yes	-----	4 days softening of the brain and pneumonia.
7	Gjurjevitich in Subbotitch: Deut. Ztschft. f. Chir., 1914, CXXVII, 462.	M Sol- dier ----	----	Lig. I.C.A., 1912 or 1913.	---	---	36 hours hemiplegia from embolus.
8	Morestin: Bull. et mem Soc. de clin. de Par., 1915, n.s., XLI, 2443.	M 35 L	5 months	Lig. I.C.A. above and below, extirpation of sac, 5-9-1915.	---	---	

TABLE NO. 1 (Continued)

No.	SURGEON. REFERENCE	SEX, AGE, SIDE	DURATION	OPERATION, DATE	CURED	DIED, CAUSE	REMARKS
9	Bouchard: Rev. gen. de clin. et de ther., Par., 1916, XXX, 104.	M Sol- dier R	15 days 6-6-1915.	Lig. C.C.A.	Yes	-----	The patient was wounded by a pistol ball which opened the right maxillary antrum, then coursed downwards to lodge in the muscles of the neck in front of the atlas. The sinus was drained, at the front, and the man was evacuated to a base hospital which he entered May 22, 1915. The track of bullet was opened and the missile removed. The patient was apparently making a smooth recovery when, June 6, he had a severe hemorrhage from wound. The bleeding point was exposed and an attempt made to ligate vessel at fault, but the tissues were so friable that the clamps cut through. The common carotid was therefore isolated. It was observed that on compression of this vessel bleeding ceased. Therefore two ligatures were thrown around the primitive carotid the wound packed with gauze, and the man returned to bed. A month later the patient was evacuated to facial-maxillary center. At no time were there any cerebral symptoms. The day after operation the patient demanded food and desired to get out of bed.
10	Page in Makins: The Br. J. of Surg., 1915-1916, 111, 378 and 404.	M Sol- dier R	5 days	Lig. C.C.A. 5 days after the injury 1914 or 1916.	Yes	-----	This case resulted from a missile injury received in the world war. There was no history of primary bleeding. The man presented a tense swelling of the soft palate and the right side of the pharynx which gradually disappeared after the ligation. The tying gave rise to no cerebral symptoms. There was a right facial weakness.
11	Gilbert: Il Policlinico, 1918, XXV, sez. prat., 557.	M 23 R	Short Time	Lig. I.C.A., above, C.C.A., below sac, I. J. V. 6-30-1917.	Yes	-----	A twenty-three year old soldier entered the hospital June 28, 1917, for a shrapnel wound of the right side of the neck, received June 20. The projectile entered the lower part of the neck and emerged near the tip of the mastoid. The right side of the neck was the seat of tumefaction, the size of an apple, without definite limits. The larynx was pushed to the opposite side of the neck and there existed laryngeal and oesophageal compression symptoms, namely, dyspnoea, hoarseness, dysphagia and cyanosis. The lump was soft, compressible, and animated with rhythmic rising and falling synchronous with opposite carotid. Mass was pulsatile throughout. Inspection of oro-pharynx showed paralysis of the soft palate, the half of the tongue on the side of the injury and the right vocal cord. The sac was incised and emptied of clots and the artery clamped through the sac. After freeing of the common carotid the sac was isolated and found to arise from the internal carotid in the segment immediately above bifurcation. The post-operative course was satisfactory. At the end of two months the paralysis had all disappeared, with the exception of a slight deviation of the tongue to the right.
12	Pfriem: Arch. f. klin. Chir., 1917, CVIII, 680.	M 28 R	About 1 month	Lig. I.C.A. proximally. 12-11-1916.	Yes	-----	Turkish soldier wounded Oct. 14, 1916, by a shell-splinter. According to the skiagraph the splinter came to rest at the level of the angle of the jaw in close proximity to the pharynx. There was right-sided paralysis of the facial in all

of its branches, the glosso-pharyngeal and the hypoglossal, severe pain in the ear and neck; immediately below ear a pulsating swelling in which a systolic bruit could be heard. November 21, dysphagia developed. To the right of the uvula was a walnut size swelling, covered with a bluish-red mucous membrane. It had all of the appearances of a suddenly arising retropharyngeal abscess. During the following days the lump increased in volume, and the difficulty in swallowing was so aggravated that fluids were taken with difficulty. The uvula was pushed to the left. A perceptible pulsation and thrill led to the diagnosis of aneurism of the internal carotid. With the tying of the artery there was immediate cessation of pulsation and perceptible decrease in the size of the lump. After eight days the patient could eat ordinary food. At no time was there pain or cerebral disturbances. He arose from bed three weeks after operation. Two months after the intervention he was quite well. The paralysis had disappeared.

Tolerably large aneurism some distance above the bifurcation. Suture was not to be considered owing to the bad approach and the unfavorable condition of the patient. After operation the patient did quite well for four days. On the 5th day flaccid paralysis supervened; first, on lower extremity on the side opposite to the wound and, two days later, the upper extremity was involved. By this time the patient was stuporous and died on 10th day. Autopsy showed softening of the cerebrum on the side of the ligation.

This patient ran a course somewhat similar to case 13, but more brisk. Here, paralysis appeared on the side opposite to the wound the day following the operation, and on the third day the man died. Autopsy showed a softening of the cerebrum.

Wounded Sept. 29, 1916; admitted Oct. 1, for a penetrating wound of the neck. The missile entered the mouth, pierced the right pharyngeal wall, and lodged posteriorly a little to the right of the mid-line and slightly below the hair-line whence it was removed. There was no recognizable swelling in the neck or throat, no pulsation, no bruit. The movements of the jaw were unimpaired; the pulse in the temporal artery palpable; speech indistinct; incomplete paralysis in the left upper extremity, left lower complete. 10-13-1916, empyema, resection of the right 10th rib and drainage. October 25th, the wound in the neck suppurated, necessitating its reopening and drainage. October 31, a free hemorrhage occurred. The blood was red and frothy. The cause was a small, tender, puffy area showed itself in the neck. That night there was another hemorrhage. By Nov. 6, the swelling had increased markedly and bruit was detectable. Operation revealed an aneurism of the internal carotid arising close to its point of origin. The vessel itself had been completely severed and the upper part had retracted to the level of the posterior belly of the digastric muscle. The internal jugular vein was doubly ligated, the intervening section excised, and the opening in the lower segment of the internal carotid sutured. Only the external carotid could be demonstrated issuing from the bifurcation of the common carotid. The sac was opened and the coagula removed. While suturing the sterno-cleido-mastoid muscle the patient suddenly died. Autopsy revealed an organizing clot in the peripheral segment of the internal carotid and softening of the cerebrum.

13 Pribram: Arch. f. klin. Chir., 1917, CVIII, 680. M Sol-dier

14 Pribram: Arch. f. klin. Chir., 1917, CVIII, 680. M Sol-dier.

15 Rauchenbiehler: Arch. f. klin. Chir. About 2 weeks M Sol-dier R

TABLE NO. 1 (Continued)

REMARKS

Patient, a soldier received June 23, 1916 for a shell wound in the upper part of the right side of the neck. There was a diffuse swelling in this region. July 21, 1916, the patient was reported as convalescing nicely.

The patient was admitted March 18, 1917, for a pulsating lump on the left side of the neck which appeared a short time after the receipt of a pistol wound incurred a year previously. The swelling was the size of a hen's egg, beat synchronously with the radial pulse and expanded throughout. A bruit was heard and a slight vibration was noticeable to the touch. The impression was aneurism of the left internal carotid artery. On March 27, 1917, a right hemiplegia occurred. This was attributed to an embolus set loose by the manipulation of the mass by the staff physicians. Though the patient had experienced a paralytic stroke, he was anesthetized with chloroform and the vessels indicated ligated. By April 30, 1917, the tumor had almost disappeared and the paralysis was improving slowly. Both the patient and the surgeon were natives of Buenos Aires, Argentine Republic. So far as I could determine, it is the only case reported from South America.

The lesion was caused by a knife wound. There were no cerebral symptoms. This paper was presented before the Societa Medico-Chirurgica Anconitana, January 30, 1920. The abstract reported in the reference gives no details of the case.

June 13, 1917, a deck-hand was brought aboard ship with a bullet wound in the right side of the upper part of the neck, received while ashore. He had lost a good deal of blood and was in collapse. On removing the first-aid dressing a considerable hematoma was noticed. Anteriorly was a wound just above the level of the thyroid cartilage, and one and a half inches to the right of it and posteriorly, another wound about same level and 2 inches to the right of the mid-line. There was no pulsation in the hematoma, no murmur, no external bleeding. During the succeeding 4 days the swelling subsided slightly. On 5th day, however, pulsation was noticed and thought to be expansile, and a soft systolic blow was now audible. Soon thereafter the larynx began to show signs of compression. Aneurism was definitely increasing in size. By June 26 its lower limit was within an inch and a half of the clavicle and the upper pole at the level of the mandible. As the man's condition was daily becoming worse, it was decided to operate. With the tying of the ligature all pulsation ceased, so the wound was closed. The patient rapidly recovered from the effects of the operation and had every appearance of doing well. However, four days later there was some return of the pulsation and on the 14th day after the operation the lower end of the sac burst into the wound. Although the hemorrhage was promptly stemmed the patient died in 2 1/4 hours. It was found at post mortem the internal carotid artery had been severed at its origin; the ligature had held and there was no suppurative of the wound.

The common and internal carotid arteries were tied for hemorrhage from a leaking aneurism connected with the commencement of the internal carotid. The operation was a success with no complications.

NO.	SURGEON, REFERENCE	SEX, AGE, SIDE	DURATION	OPERATION, DATE	CURED	DIED, CAUSE	REMARKS
16	Kalina: Finska Lakaresallskapet Handlingar, 1916 LVIII, 1641.	M 19 R	---	Lig. C.C.A., E.C.A., I.C. A., S.T.A., extirpation of the segment between the ligatures, lig. I.J.V. 7-3-1916.	Yes	-----	
17	Vegas: Revisit. Espan. de Med. Y Cirug., Barcelona, 1920, 111, 381.	M 6 L	1 year	Lig. C.C.A., I.J.V. doubly lig. and divided. 4-16-1917.	Yes	-----	
18	Cauci: La Riforma Medica, 1920, XXXVI, 417.	---	1 month after extirpation	Lig. C.C.A. incision and packing of aneurismal cavity.	Yes	-----	
19	Sanders: Jl. Royal Naval Medical Service, Lond., 1919, V. 101.	M Man R	1 week	Lig. C.C.A. in inferior carotid triangle. 6-26-1917.	---	14 days after operation hem. rupture of sac.	
20	Official History of the Great War—Medical Services—Surgery of The War, Lond., 1922, Vol. ii, 243.	M Soldier ---	---	Lig. C.C.A. and I.C.A. -----	Yes	-----	

No.	SURGEON, REFERENCE	SEX, AGE, SIDE	DURATION	OPERATION, DATE	CURED	DIED, CAUSE	REMARKS
21	Fingerruth: Preussische medicinall 37 Zeitung, 1864, VII, 183. R	M 37	9 months		----	Spont. rupture hemorrhage.	It was in December and the ground was covered with a light mantle of snow. The patient, a teacher, was playing in school-yard with pupils. While stooping he struck the earth with a pipe he had in his mouth shattering the stem. The accident was followed by a slight hemorrhage from the mouth which soon ceased spontaneously. The man thought nothing further of the occurrence until next day, when, taking the pipe from its container, he noticed the end of the stem was missing. A diligent search failed to locate it. Five days later he complained of a pain in the throat and stiffness of the right side of the neck which rendered movement of the head difficult. Examination developed some swelling in the right parotid region, and intraoral inspection a swollen and red tonsil and palate. The swelling remained stationary for eight months, after which time it increased in size. One day while hunting there was a severe hemorrhage from the mouth which stopped spontaneously, only to be followed six hours later by a fatal bleeding. Autopsy showed an extracranial aneurism of the internal carotid artery and, close by, the missing piece of the pipe stem.
22	Lee in Fenger and Lee: Gaillard Med. JI., 1882 28 XXXV, 10.	M 28 R	15 days		----	Immediately, mistaken for abscess and incised mortal hemorrhage.	Bullet wound, right infraorbital region, no hemorrhage; subsequent swelling in the parotid region. Fifteen days after the accident the wound was entirely healed, but a swelling of the hard and soft palate had set in. The man paid a visit to Lee's office and complained of inability to speak or swallow, and of a severe pain in the right side of the neck. His appearance was that of a person suffering with a severe tonsillitis. With considerable difficulty the patient succeeded in opening his mouth sufficiently to permit of a limited inspection. The tonsil and soft palate were so swollen as to preclude inspection of the pharynx. On the hard palate there was a small, firm tumor about the size of a hickory nut. Thinking it might be the ball surrounded by inflammatory products, Lee made an exploratory incision with a gum lancet. There was a gush of bright red arterial blood followed by a peculiar hissing noise. All attempts to staunch the escaping blood were prevented by the struggles of the patient who died in a few minutes. Autopsy by Fenger confirmed the diagnosis of extracranial aneurism of the internal carotid artery.
23	Booth: Phila. Med. JI., 1900, L VI, 1002.	M 25 L	18 days		----	10 days hem.	No operation at first diagnosed abscess but later changed to aneurism of the internal carotid. Section from the growth showed no signs of malignancy. No pulsation was ever made out. The patient had repeated hemorrhages prior to death.
24	Fier in Kuettner: Brit. Z. klin. Chir., 1917, CVIII, 6 and 43. R	M 21 R		-----	----	March 13, 1915, thrombosis of the left vertebral artery, basilar artery, circle of Willis, its lateral branches, and the left and right internal carotid arteries.	The patient, a soldier, was wounded Oct. 5, 1914, by a gunshot projectile in the left shoulder and thigh. He was evacuated to a hospital in the rear Nov. 6. November 17th he was returned to his regiment. After Christmas there formed in left side of the neck, at the point of exit of the bullet, a great and tender swelling. Under local applications of moist heat this disappeared on several occasions, but the patient was compelled, March 4, 1915, to enter the medical clinic whence he was transferred to the surgical service for the purpose of operation. At this time he complained of a roaring in the ear and the left side of the head. In the upper half of the left side of the neck was a swelling the size of a fist, which pulsated; the presence of thrill was not proven, but a

TABLE NO. 2 (Continued)

No.	SURGEON, REFERENCE	SEX, AGE, SIDE	DURATION	OPERATION, DATE	CURED	DIED, CAUSE	REMARKS
25	Orth: Beitr. z. klin. 1917, CV, 347.	M Sol- dier L	Some time		Unim- proved.	-----	<p>The patient had received previous care in another hospital. He complained of a continuous headache and severe neuralgic attacks in the neck and left side of the head. The man was exceedingly nervous and anxious, and could not be induced to undergo an operation. No mention is made of the ultimate outcome.</p> <p>The entrance of the projectile was on the right side of the neck; exit, on the left at the top of the mass. March 12, 1915, Bier ligated the left common carotid artery, just below the sac, and divided the facial vein after doubly tying it. As further freeing of the primitive carotid failed to demonstrate the aneurism as arising from it the sac was incised and the escape of blood controlled by the introduction of a finger. The breathing suddenly ceased, but the pulse retained a good tone. After a high tracheotomy breathing was reestablished. The man failed to rally, however, and died March 13, 1915. A post-mortem performed March 14, showed an aneurism of the left vertebral artery; but, what concerns us more, a penetrating wound of the right internal carotid artery just above its origin from the common carotid, on each side of which was an aneurism the size of a hazel-nut filled with a firm clot. The right internal carotid was also occluded by a thrombus. The aneurisms in this vessel were apparently unsuspected until autopsy.</p>
26	Johnsen in Gabriel: Beitr. z. klin. Chir., 1916, CXVI, 583 and 584.	M Sol- dier ----	About 1 month		----		<p>Man wounded July 2, 1918, mistaken diagnosis of aneurism of the external carotid made for which this vessel was exposed August 23, 1918, with failure to locate the lesion. The external carotid was, however, ligated with the cessation of a whirling. The patient died the same evening. Autopsy revealed an aneurism of the internal, instead of the external carotid, and softening of the brain. A thrombus was nowhere to be found.</p>

as aneurism of the internal carotid. The patient, a man, aged 35, had had an inflammation of the throat simulating an abscess, 6 years previously. This had been punctured by a local physician but without result. Examination revealed an intra- and extra-buccal lump which pulsed strongly. The patient complained of dysphagia and his life was threatened by suffocation. An aneurism of the right internal carotid artery was suspected, possibly of traumatic origin, and the corresponding common carotid artery ligated at the point of election. The lump decreased in size but was persistent two years thereafter. It did not pulsate. The man was in improved health. At the time Matas was still of the opinion that the enlargement was a tumor of the tonsil. That he is yet of the same opinion is attested by a conversation with my father, Dr. Randolph Winslow, in 1921. In this talk Matas said he had never had under his care an aneurism of the cervical portion of the internal carotid artery. An undoubtedly genuine case of traumatic aneurism of the internal carotid artery, operated upon by Bossowski, and according to Helman (*Medycyna i kronika Lekarske*, 1909, xliv, 708) reported in *Pamiętnik 11 zjazdu chir. polskich*, 1891, str. 75 (Trans. 2nd Gathering of the Polish Surgical Society), must be excluded from my list as neither the original article nor a transcript was accessible to me. Helman merely mentions the case without supplying any of the details. Rauchenbichler (*Wien. klin. Wochsft.*, 1913, xxvi, 84) describes a case which he clinically diagnosed as an aneurism of the internal or common carotid artery. The patient, a man, aged 57, wounded himself with a knife-like instrument in the left side of the neck, 8 days previously. The ensuing hemorrhage which was free, was controlled by suture of the soft parts and a firm bandage. From the moment of the injury there was speech disturbance but no other paralysis. Eight days after the accident a swelling developed at the site of the wound. It was at this time the patient was brought to the hospital. In the left side of the neck corresponding to the course of the great vessels was a fluctuating, expansile swelling the size of a hen's egg with a systolic blow. The pulsation was influenced greatly by compression of the common carotid but not completely arrested. Other than the statement that the author intended later to perform arteriorrhaphy no further details are given concerning the case. The vessel at fault therefore remains in doubt. Frisch (*Berl. klin. Wochsft.*, 1916, liii, 99) presented before the Royal Society of Physicians of Vienna, at the December 10, 1915, meeting, a patient with what he believed an aneurism of the internal carotid located in the neck close to the base of the skull. The trouble originated from a gunshot wound. The presence of such signs as hoarseness, atrophy of the sterno-cleido-mastoid muscle, shrinking of the half of the tongue corresponding to the injured side, the development of a contracted pupil and ptosis on the side of the injury indicated damage to the vagus, spinal accessory, hypoglossal and cervical sympathetic nerves. Behind the angle of the jaw was a

pulsating swelling. Calcium lactate administered by mouth and pressure applied to the mass caused the pulsations to become less pronounced. Whilst this is probably an aneurism of the vessel under discussion, the evidence is not such as to warrant its inclusion in the tables. Gasne (*Paris Chirurgical*, 1920, xii, 212) reports quite a similar case. The patient, a soldier, was injured March 12, 1916, by the concussion of a shell, as evidenced by the absence of a wound and failure to find embedded in the tissues by an X-ray examination any foreign body. There was bleeding from the left ear, hemicrania, aphonia, embarrassed respiration and a tumefaction in the left carotid region. When admitted to the hospital, March 21st, the entire left carotid and parotid regions were markedly tumefied. To the touch the involved area felt doughy rather than fluctuating and exhibited neither expansion nor pulsation. Behind the angle of the jaw was a genuine tumor as large as an apricot, round, limited and animated by expansion and beats and soufflé. Examination of the pharynx was difficult owing to the pain produced on opening the mouth. The entire left wall of the pharynx was bulging. Gradually the swelling diminished. The aneurism preserved its characteristic features until April 6th, when it began to fade away. By April 23rd, there were no more beats or soufflé, and the swelling had almost entirely disappeared. The man was discharged on May 31st, 1916. Six months later he was again at the front. Though ignorant of the patient's future course, Gasne regarded the swelling as an example of rupture of a large vessel from the shock of a bursting shell which terminated in a spontaneous cure. He thought the vessel involved one of the carotids.

Knaggs (*The Br. J. of Surg.*, 1920-1921, viii, 167 and 170) states during the World War he had to deal with only four aneurisms of the neck. One of these arose from the neighborhood of the bifurcation, but unfortunately the writer does not mention which vessel was involved, and the description is such as to leave the reader in doubt. The patient, a member of the 2nd Coldstream Guards, was wounded on Dec. 12, 1916. When he came under observation on Dec. 27, there was an unimportant wound over the left temporomandibular joint, and another very small healed wound $9\frac{3}{4}$ inches below and behind the angle of the left mandible. In front of the latter wound was a pulsating swelling, the size of a chestnut. The pulsation was not expansile, and there was no bruit. It felt like a mass of inflammatory tissue. On Jan. 26, 1917, a short, sharp systolic murmur appeared and the pulsation became expansile. The external carotid felt thicker at its most superficial part when compared with that on the other side, and the main swelling blended with this thickened part. On Jan. 27, 1917, under ether anesthesia, the left common carotid artery was exposed and a temporary ligature applied at the level of the cricoid cartilage. A dissection of the sac was made, and its whole anterior surface and sides were exposed. It extended from the level of the bifurcation to the posterior belly of the digastric. The

parts were so matted as to render impossible the recognition of the anatomical structures involved or to complete the removal of the sac without danger of injury to important structures, consequently the operation was concluded by tying the common carotid at the level of the thyroid cartilage, without seeking the fragment of metal to which the lesion was attributed. On May 14th the swelling had completely disappeared, its site being indicated by a little thickening. There was no bruit and the condition appeared completely healed.

Goldamer (*Beitr. z. klin. Chir.*, 1917, cvi, 605) reports the case of a soldier who had a tear at the point where the right internal and carotids diverge and the aneurism was formed at the expense of both vessels. The wound in the external carotid was treated by lateral suture. The internal carotid was too badly damaged for restorative purposes and required a ligation. For many days after the operation the patient lay in a stupor with his eyes turned to the side of the injury and with spastic paralysis of the opposite side of the body. These serious symptoms developed despite a week's preliminary compression of the common carotid. The man finally regained complete health. It is mentioned that Reich (*Muench. med. Wochsft.*, 1915, lxii, 200) exhibited, at the December 2, 1914, session of the Medizinische-Naturwissenschaftlicher Verein Tuebingen, a man with simultaneous aneurisms of the internal and external carotid arteries due to gunshot wound. However, no details are furnished. In an abstract in *Jour. Chir., Par.*, 1911, vii, 677, of an article by Herzen published in *Chirurgia* 1911, xxx, supplement for September, 95, it is said Herzen saw an aneurism involving both the internal and external carotids simultaneously in a soldier wounded in the Russo-Japanese War and in another case, again in a soldier, one of the internal carotid. These cases are simply mentioned.

The following case is mentioned in the Official History of the Great War-Medical-Services-Surgery of the War, Lond., 1922, vol. ii, 243: The patient was a soldier who had had all three carotid arteries ligated for an aneurism at the bifurcation. Other than the patient made a good recovery without any impairment of power, no information is vouchsafed. I conclude the list with the reports of the cases of Eiselberg and Matthews. Though not so stated, they are apparently of the intracranial cranial type. The case observed by v. Eiselberg was reported by Ranzi in the *Arch. f. klin. Chir.*, 1918, cx, 656. The patient, a soldier, aged 26, was admitted into the hospital February 17, 1917, for a wound received December 12, 1916. On admission there was a suppurative wound in the left cheek, fracture of the mandibular ramus, ankylosis of the jaw, exophthalmos, edema of the lid and distinct roaring in the neighborhood of the parietal bone. Pinching of the exposed external carotid did not influence the noise, but with occlusion of the internal branch the roaring was controlled. Therefore April 12, 1917, the lumen of the left internal carotid was occluded to



about $\frac{3}{4}$ ths its normal calibre. October 26, 1917, one half a year after the operation, the exophthalmos was reported as substantially improved and the noise greatly diminished. Matthews (Jour. Royal Army Med. Corps, Lond., 1907, viii, 1437) records a case of somewhat the same character. The patient, a man, was kicked by a horse on the left side of the head just above the zygoma, July 22, 1905. About a week afterward he developed a squint in the left eye. In September, 1905, he noticed impairment of vision. Somewhat later a buzzing sound appeared, with its point of greatest intensity located in the region of the zygoma. There was no external swelling, no pulsation, but a well-marked bruit could be heard over the pterygoid region and the upper part of the posterior triangle. This could be stopped by compression of the common carotid artery. June 30, 1906, the common carotid artery was tied. The patient made an excellent recovery. Both the bruit and the buzzing entirely disappeared.

EDITORIAL

THE BURT J. ASPER MEMORIAL FUND

Though contributions to this fund have been slow in materializing, it has nevertheless made steady progress. Lest there be some misunderstanding concerning the purpose of this fund, we repeat that it is created to do honor to the memory of an alumnus who made the supreme sacrifice during the World War. He was ship's surgeon aboard the ill-fated Cyclops which disappeared so mysteriously while on a return trip from South America. The fund is permanent, only the interest being available for the purchase of books or subscriptions to journals. Every dollar contributed serves a double purpose (1) The perpetuating of the memory of a worthy alumnus (2) The provision of good medical literature for his successors. These have contributed:

Dr. Adolph Mulstein, class of 1911, 4 Willett St., N. Y.....	\$15.00
Dr. C. A. Waters, class of 1911, Baltimore, Md.....	10.00
Dr. Paul P. McCain, class of 1911, Sanatorium, N. C.	10.00
Dr. E. J. Nichols, class of 1911, Pikesville, Md.....	5.00
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S. W. Moore, D.S., Baltimore, Md.....	5.00
Anonymous.....	10.00
Total.....	\$150.00

The fund is still open. Your subscription is most acceptable.

DEATHS

Dr. Orrin Arthur Clark, Long Branch, N. J., B.M.C., class of 1894; aged 55; died July 29, 1923, of malarial cachexia.

Dr. Nelson Peck, Clarksburg, W. Va., class of 1886; aged 74; died February 16, 1923.

Dr. Henry Latimer Rudolph, Gainesville, Ga., class of 1902; served in the M.C., U.S. Army during the World War with the rank of Captain; aged 43; died January 28, 1923, of pneumonia.

Dr. Douglas Adair White, Syracuse, N. Y.; P. and S., class of 1887; aged 62; died February 1, 1923.

Dr. John Kemp Warfield Piper, Russellville, Ky.; class of 1893; aged 52; died June 12, 1923, at Phoenix Arizona, of pneumonia.

Dr. John Royston Green, Towson, Md.; class of 1899; died February 22, 1923, of pneumonia.

Dr. Joseph N. Gardner, Washington, D. C.; class of 1889; died February 22, 1923, of heart disease.

Dr. Frank T. Shaw, Westminster, Md., class of 1864; at one time Collector of the Port of Baltimore; aged 81; died February 24, 1923, of uremia.

Dr. Alvin J. Roller, Bristol, Tenn., P. and S., class of 1882; aged 64; died March 27, 1923, of bronchopneumonia.

Dr. William Caspari, Jr., Baltimore, Md., B.M.C., class of 1902; formerly associate professor of materia medica and pharmacology in the University of Maryland; aged 61; died February 13, 1923, of angina pectoris.

Dr. James Worthington Parshall, Uniontown, Pa., class of 1887; aged 60; died April 14, 1923, of pneumonia.

Dr. George Wilmer Yourtee, Burkittsville, Md., class of 1902; aged 45; died April 1, 1923.

Dr. Luther Pope Everhardt, Elberton, Ga., P. and S., class of 1892; aged 53; died March 25, 1923, of chronic nephritis and pericarditis.

Dr. John William McGuire, Chicago, Ill., B.M.C., class of 1894; served in the M.C., U.S. Army during the World War; aged 54; died June 21, 1923, of chronic myocarditis and chronic nephritis.

Dr. William John Blake, Benwood, W. Va., class of 1909; aged 38; died June 25, 1923.

Dr. Frank J. Woodbury, St. George, Utah; P. and S., class of 1904; aged 54; died July 2, 1923.

Dr. John Manley Cain, Calahan, N. C.; P. and S., class of 1897; aged 74; died June 14, 1923.

Dr. John Joseph Bell, Harbor Creek, Pa.; P. and S., class of 1901; aged 54; died recently, before August, 1923.

Dr. Franklin H. Deiss, Takoma Park, Md.; P. and S., class of 1880; aged 63; died July 7, 1923.

Dr. John Gaffney Thomas, Adamstown, Md., B.M.C., class of 1905; aged 42; died July 23, 1923.

Dr. Mercer R. Girvin, Mt. Nebo, Pa.; P and S., class of 1893; aged 54; died April 25, 1923.

Dr. William Alfred Belt Sellman, Baltimore, Md., class of 1872; formerly professor of diseases of women, Baltimore University School of Medicine; aged 72; died May 10, 1923, after a lingering illness.

Dr. Franklin Pierce Hoover, Jacksonville, Fla., class of 1884; aged 61; died April 22, 1923, of angina pectoris.

Dr. Richard Curd Bowles, Kent's Store, Va., class of 1861; surgeon in the Confederate Navy; aged 86; died June 7, 1923, of senility.

Dr. George S. Altmere, Stonewall, N. C., Washington University School of Medicine, class of 1870: Civil War Veteran; aged 77; died June 2, 1923, of injuries received in a fall.

Dr. James Montgomery Reece, Elkins, N. C., P. and S., class of 1886; aged 64; was found dead in bed, May 31, 1923.

Dr. Rawley Holland Powell, Fairmont, W. Va., P. and S., class of 1892; served with the M. C., U.S. Army during the World War with the rank of Major; aged 54; died August 5, 1923, following a long illness.

Dr. James A. Manley, Scranton, Pa., P. and S., class of 1884; also a pharmacist; aged 63; died suddenly, August 16, 1923, of heart disease.

Dr. Monzell M. Hoff, Philippi, W. Va., class of 1898; aged 64; died August 19, 1923, of heart disease.

Dr. Leo Francis English, New York, N. Y., B.M.C., class of 1907; aged 45; died August 22, 1923, from an overdose of a drug.

Dr. John J. Cunningham, Providence, R. I., B.M.C., class of 1904; aged 44; died August 26, 1923.

Dr. James Semple Haile, Chatham, Va., class of 1886; aged 69; died August 13, 1923.

Dr. Richard Hall Johnston, Wilson, N. C., formerly a resident of Baltimore and clinical professor of diseases of the nose, throat and ear in the University of Maryland and one of the most eminent laryngologists and laryngoscopists in the country; died May 13, 1923, of chronic nephritis and uremia. For more than 20 years Dr. Johnson practiced his profession in Baltimore. In 1918, because of failing health, he returned to his native state, North Carolina, locating in the city of Wilson where he opened offices. At the time of his death he was 52 years of age.

Dr. John Lawrence May, Westerly, R. I., P. and S., class of 1901; aged 50; died May 30, 1923, of heart failure

Dr. George H. Cairnes, Baltimore, Md., class of 1864; died May 28, 1923, of senility; aged 85. For many years Dr. Cairnes enjoyed a large and lucrative practice.

Dr. George S. Silljacks, Baltimore, Md., class of 1886; aged 63; died June 1, 1923.

Dr. Herbert Harlan, Baltimore, Md., class of 1879; died August 16, 1923, of heart disease. He was born in Harford county, Maryland, May 7, 1856. He was assistant demonstrator of anatomy in the University of Maryland from 1880 to 1886, and from then till 1890, demonstrator of anatomy. At the time of his death he was chief of staff of the Presbyterian Eye, Ear and Throat Hospital, Baltimore, President of the State Board of Medical Examiners for Maryland, and President of the Medical and Chirurgical Faculty of Maryland. About two months ago he resigned from the National Board of Medical Examiners. Dr. Harlan was an oculist of national reputation. He was a brother of Judge Henry D. Harlan, and a son of the late David Harlan, who was a medical director in the United States Navy. He held the degrees of B.A., and M.A., from St. Johns College. His entire career sheds lustre upon the escutcheon of his alma mater.

BOOK REVIEWS

International Clinics. A Quarterly of Illustrated Clinical Lectures and Especially Prepared Articles on Treatment, Medicine, Surgery, etc. Edited by Henry W. Cattell, A. M., M. D. Vol. II. Thirty-Third Series, 1923. Philadelphia and London. J. B. Lippincott Company.

This volume like all other volumes of the International Clinics contains, discusses, and elucidates the burning questions of the moment. Many pages of the present issue are devoted to the consideration of the many phases of insulin as it concerns the patient. These articles are by well known authorities and can be relied upon as safe and sound expositions of the present position of insulin in the treatment of diabetes of the severer types. A paper of more than passing interest is that of Edward Francis on Tularaemia, A New Disease of Man. As usual the range of subjects treated is wide and variegated thus adapting the volume to the needs of the general practitioner and specialist alike. It gives us much pleasure to recommend this quarterly to the kind consideration of our readers. Each issue contains something of especial interest to each and every one of the medical profession.

Nursery Guide. For Mothers and Nurses. By Louis W. Sauer, M. A., M. D., Senior Attending Pediatrician, Evanston Hospital; formerly Attending Physician, Chicago Infant Welfare, and Assistant Attending Physician Children's Memorial Hospital, Chicago. Illustrated. 1923. Cloth, \$1.75 net. St. Louis. C. V. Mosby Company.

This brief nursery guide is intended to aid those to whom are entrusted the care and feeding of infants. The author is thoroughly alive to the important part feeding of the child plays in its welfare and development. Properly fed infants thrive and mature, improperly nourished children have difficulty in weathering the stress of existence and may die. This book is designed for the purpose of rescuing as large a proportion of the improperly fed as possible so as to reduce the infant mortality from this cause to the irreducible minimum. The rules laid down to accomplish this end are simple, sensible and practicable, covering such elementary information as necessary concerning parental care, minor ailments of the new born babe, clothing, bowels, bath, air, sleep, nursing, weaning, artificial feeding, some of the common diseases and care of the sick infant. It is a veritable multum in parvo and should prove a useful as well as welcome guide to mothers rearing young children.

Papers from the Mayo Foundation for Medical Education and Research and the Graduate School of Medicine of the University of Minnesota, covering the period of 1920-1922. Octavo volume

of 716 pages with 257 illustrations. Philadelphia and London. W. B. Saunders Company. 1923. Cloth \$10.00 net.

The tree is known by its fruit. This book is a record of the work of the graduate students of the Mayo Foundation during the period of 1920-1922. It is a record of which any school may well be proud. Besides the material contained within the pages is a distinct contribution to the progress of surgery and its specialties. Of particular interest to us is an article by James Chester Brogden, class of 1914, on Actinomyces of the Gastro-Intestinal Tract: A study of 14 Cases, in which he states that the diagnosis of actinomyces of the intestinal canal is rarely made until late after sinus formation and extensive involvement of the intestines, liver, or other organs had taken place and after surgical excision of the diseased area is impossible. Any mass which occurs in the lower part of the abdomen in the region of the ileocecal valve, particularly one associated with a persistently discharging sinus, should be regarded with suspicion. Repeated examination of the discharge, biopsies, loss of weight and strength, pronounced anemia, flexion of the thigh without disease of the vertebral column rarely fail to establish the diagnosis.

It is needless to state that this volume maintains the same high standards as everything else emanating at the Mayo Clinic. It should be on the shelf of every surgeon and the internist will find much in it of interest and benefit.

Legal Medicine and Toxicology. By Many Specialists. Edited by Frederick Peterson, M.D., Manager Craig Colony for Epileptics Walter S. Haines, M. D., and Ralph W. Webster, M. D., Assistant Professor of Medical Jurisprudence Rush Medical College Second Edition. Two Octavo volumes, totaling 2268 pages, with 334 illustrations, including ten insets in colors. Philadelphia and London. W. B. Saunders Company, 1923. Cloth, \$20.00 net.

Without doubt this is the most thorough, the most complete, the most authoritative, the best book on legal medicine and toxicology in the English language. It will be found every bit as helpful to the lawyer as to the doctor. It contains also much information of value to the practicing pharmacists. Both volumes have been thoroughly revised and brought up to date, including the introduction of such topics as the legal procedure in medicolegal cases, the forensic relations of cremation, and the possible legal complications following the application of radium and the ultra-violet rays. In the article on Inorganic Poisons sodium silicate, potassium permanganate, lithium salts, magnesium sulphate, thorium salts, tellurium salts manganese salts, vanadium salts, cadmium salts and fluorine and its salts, the arsenicals, are discussed at length. Carbon tetrachloride, tetrachlorethane, veronal, thymol, trinitrotoluene, oil of chenopodium, methyl alcohol and the toxicology of the various war gases are comprehensively treated. Volume 1 embraces such topics as the Legal Rights and Obligations of the Physician; Identification of the Living; The

Signs of Death; Death From Cold, Heat and Starvation; Railway Injuries; Inebriety; The Stigmata of Degeneration; Mental Perversions of the Sexual Instinct; The Legal Aspect of Pregnancy; Rape; Unnatural Sexual Offences; Marriage and Divorce, etc.

Each of the 2268 pages of this book is teeming with practical suggestions to those seeking guidance in matters of forensic medicine. Student, physician, lawyer, dentist, the public in general can read and study its contents with pleasure and profit. It should receive a most cordial and welcome reception by the medical and legal professions.

Medical State Board Questions and Answers. Fifth Edition, thoroughly Revised. By R. Max Goepp, M.D., Professor of Clinical Medicine at the Philadelphia Polyclinic; Assistant Professor of Clinical Medicine, Jefferson Medical College. Octavo of 731 pages. Philadelphia and London. W. B. Saunders Company 1923. Cloth, \$6.00 net.

This book has been before the profession so long and its merits so thoroughly and favorably tested that words of encomium are superfluous. Those about to stand medical boards, however, will be pleased to learn that Goepp has brought his book up to date. Prospective users will find it the same old reliable stand-by as its predecessors. As a hasty method of reviewing what might be expected to be included in a state board medical examination there is no better book on the market. As heretofore, it provides a convenient compend for the use of those who wish to prepare themselves for state board examinations. It affords us much pleasure in commending it to the kind consideration of our readers.

A Text-Book of Therapeutics. Including the Essentials of Pharmacology and Materia Medica. By A. A. Stevens, M.D., Professor of Applied Therapeutics, University of Pennsylvania, Philadelphia. Sixth edition, entirely reset. Octavo of 793 pages Philadelphia and London. W. B. Saunders Company, 1923. Cloth, \$6.25 net.

This book has proven so popular that the sixth edition issued under copyright of April, 1923, has been entirely exhausted, necessitating its resetting. The present issue therefore differs in no wise from the original 6th edition. Students and practitioners however will be pleased to learn that another supply has been rendered available for their use. Needless to state, it must be very gratifying to the author and publishers to have furnished the profession a book so cordially received that it has run through six editions and several resettings.

Excursions Into Surgical Subjects. By John B. Deaver, M.D., Emeritus Professor of Surgery, University of Pennsylvania; Surgeon-in-Chief, Lankenau Hospital, Philadelphia; and Stanley P. Rieman, M.D., Assistant Professor of Experimental Pathology, University of Pennsylvania; Chief of the Department of Pathology and Bacteriology, Lankenau Hospital, Philadelphia. Octa-

vo of 188 pages and 30 illustrations. Philadelphia and London. W. B. Saunders Company, 1923. Cloth, \$4.50 net.

Dr. Deaver is a charming lecturer, a dexterous, accomplished and busy surgeon of wide experience. During his busy career he has had ample opportunity to observe surgical problems in their incipency, during their progress and terminal processes. For many years he has been acknowledged as one of the very foremost of the American surgeons both as an operator and as a teacher. His has been a large part in placing American surgery on its present high plane of excellence, therefore anything from his pen has been eagerly sought after, read and digested by his less accomplished colleagues. The present little volume owes its inception to a course of extensive lectures delivered during the summer of 1922, at Washington University, Seattle, Washington, and embraces such burning questions as the Peptic Ulcer, Jaundice, Diseases of the Bile-Passages, Trials, Tribulations, and Joys of a Surgeon, Medical Education and Educators, Living Pathology. All of these questions are of the greatest import to the clinical surgeon of the present day. None of them have been satisfactorily answered. Therefore the ideas of Deaver concerning these problems should be eagerly welcomed by the profession. It is a delightful little book, full of helpful suggestions and replete with inspiration. It affords us much pleasure in recommending it to our readers.





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FOREIGN BODIES IN THE ESOPHAGUS

EDWARD A. LOOPER, M. D.

Baltimore.

Foreign bodies frequently lodge in the esophagus. This is not surprising when you consider the anatomical construction of this musculo-membranous tube through which all swallowed substances must pass.

At birth the esophagus is about seven inches in length, increasing with age until it is about sixteen inches long at adult life. It has an irregular course with variable diameters resulting from five anatomical constrictions.

The first stricture is in the upper third on a line with the sixth cervical vertebra. It is produced by a backward projection of the cricoid cartilage.

The crico-pharyngeal constriction is by far the most important part of the esophageal lumen, for about 80% of all foreign bodies are found in this region. This is also the most difficult and dangerous area for the passage of an esophagoscope, as a perforation can easily occur in the thin wall at this point.

Other constrictions are: At the crossing of the left bronchus, at the arch of the aorta and at the hiatus produced by encircling fibers of the diaphragm, while the last stricture is at the cardia.

When quiescent the esophagus is a collapsed tube of stellate interior, due to the longitudinal foldings of mucous membrane.

This explains the ease with which small irregular foreign bodies become embedded in the normal mucosa. Pins, needles, tacks, pieces of bone, teeth, dental appliances, coins, buttons and numerous articles have been removed from time to time.

Most of the foreign body cases are found in children. A baby crawling around on the floor picks up various objects and instinctively puts them in its mouth. If the object is small or soft it may be swallowed and pass through the esophagus without difficulty. However, if it should be an irregular, sharply pointed or large foreign body it is very apt to become lodged at some point along the course of this irregular canal.

The symptoms of foreign body in the esophagus are very variable, depending upon the nature, size and location of the object.

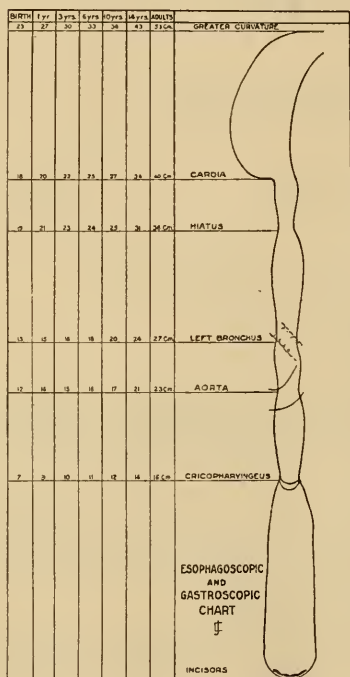
Difficulty in swallowing is one of the most common symptoms. If the article is very large there may be complete obstruction to the passage of food, and even small, irritating objects can produce occlusion by spasmodic contractions and edema of the esophageal lumen.

Coins often cause intermittent dysphagia, depending upon changes in position, from a narrow margin to a broad surface.

With pins, needles, tacks, bones and sharp pointed or irregular objects there is generally pain and at times bleeding during deglutition. Nausea and vomiting are frequently present.

Cough is a rather common symptom as a result of reflex irritation and from the overflow of food and secretions into the larynx from damming back in the esophagus.

If the foreign body is large enough to exert pressure on the larynx or trachea dyspnea will be present.

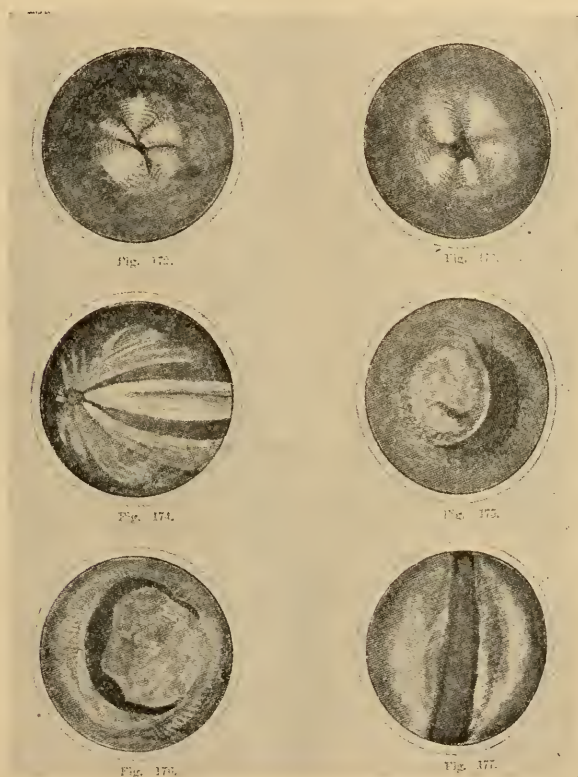


ESOPHOGOSCOPIC CHART, SHOWING LOCATION OF STRICTURES (AFTER JACKSON)

Occasionally foreign bodies remain in the esophagus for a long time without producing sufficient symptoms to be recognized.

Dr. Braden Kyle reported the removal of an artificial denture which had been in the esophagus for seventeen years.

W. G. Porter found a half-penny in the esophagus of a child which had been there for eight years.



VIEW OF ESOPHAGEAL LUMEN
(AFTER STARK)

In one of my cases the foreign body had been present in the esophagus for over three months.

It was discovered by X-Ray examination after the development of severe bronchial symptoms due to ulceration into the trachea.

The diagnosis can easily be made when it is definitely known that the patient has swallowed a foreign body, for the object must be found in the Stools, Respiratory Tract, or Gastro-Intestinal Tract.

Flourescopic and X-Ray examinations are essential in all cases, for this gives exact information as to the size and location of the object.

Glass does not show up well in an X-Ray plate, and small bones may be confused with normal osteology. This occurred in one of my cases.

So, if the patient has symptoms of foreign body and the X-Ray report is negative, an esophagoscopic examination should always be made, for the X-Ray is not infallible.

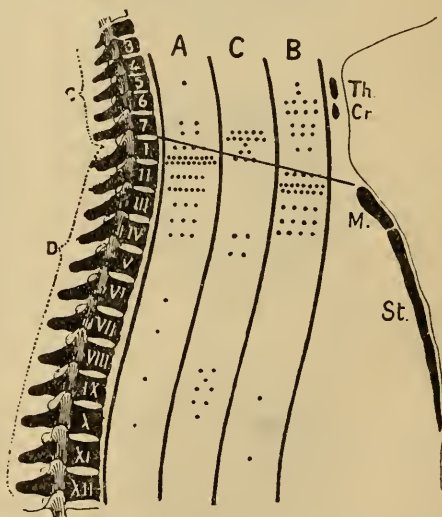
The treatment of all cases of foreign body in the esophagus is per Oral extraction of the object by esophagoscopy. Removal should naturally be accomplished as soon as possible, for delay obviously adds to the complications of extraction.

Most of the foreign bodies lodge at first in the upper part of the esophagus, where they can be easily and safely removed with forceps, so that the common practice of giving purgatives or making an effort to force the object into the stomach by blind bougies or stomach tube is to be condemned. The foreign body may be pushed down to a deeper location so that its removal is made more dangerous and difficult.

Most certainly all unlighted instruments or blind methods of extraction should be avoided. It is extremely easy to perforate the tortuous thin walls of the esophagus, and perforation means death. Such instruments as the coin catcher, bristle probang and Graefe's basket are obsolete and should not be used.

It is trully surprising how often physicians are indifferent to the presence of a foreign body in the esophagus.

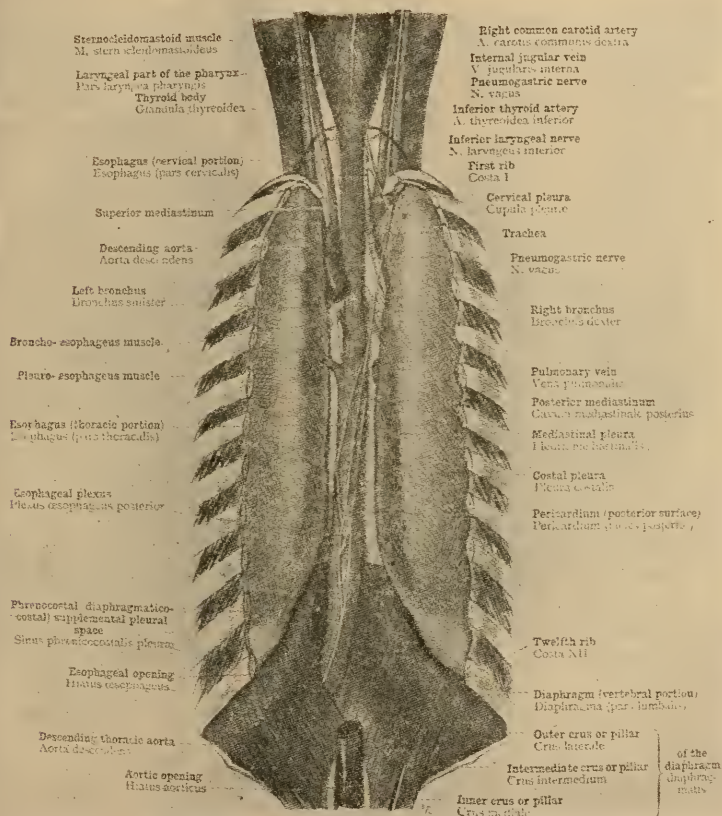
The patient is frequently instructed to take a purgative;



SCHEMATIC ILLUSTRATION SHOWING PROPORTION OF FOREIGN BODIES WHICH LODGE IN UPPER THIRD OF ESOPHAGUS (AFTER ST. CLAIR THOMPSON)

even emetics have been given. But more dangerous still is the use of some blind method of removal, which frequently results in disaster.

The dangers of any manipulation of the esophagus can be appreciated when we consider how completely it is surrounded by important structures. No other organ in the body is so closely related to vital organs.



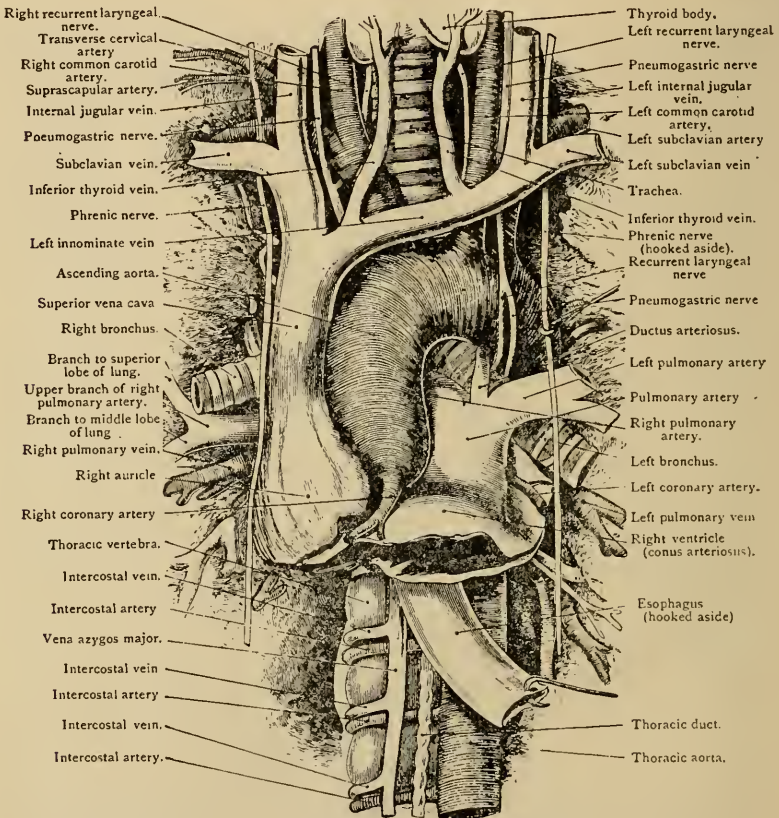
RELATION OF ESOPHAGUS, FROM BEHIND
(FROM TOLDT)

It is surrounded by the esophageal plexus of nerves which are derived from the vagus, and undue stretching of these nerves is very shocking to the patient.

The pleura, mediastinum, pericardium, aorta, trachea, bronchi, diaphragm and stomach are all in contact with the

esophagus. The esophagus itself is more intolerant to surgical interference than the tissues of the brain.

This is the principal reason why external operations upon the esophagus have been discarded, as the surgical mortality for this procedure is over 40%, while by endoscopic methods the mortality is less than 2%.



RELATION OF ESOPHAGUS TO VITAL STRUCTURES IN THORAX

The credit for pioneer work and scientific development of per oral endoscopy must be given Chevalier Jackson. His instruments and technique have been employed in my cases.

A few of my cases are briefly reported, as follows:

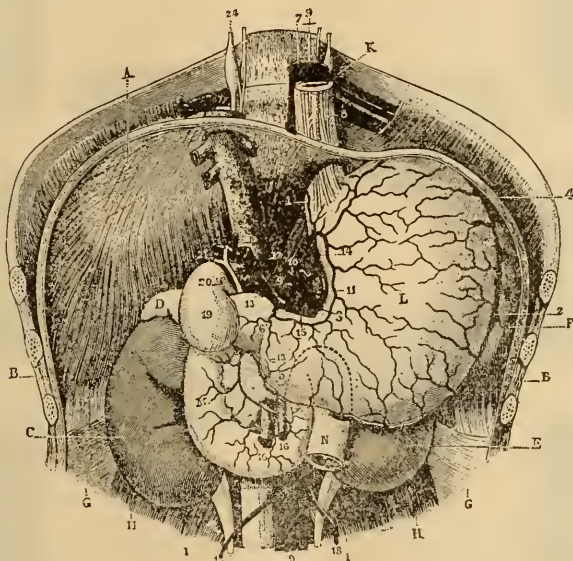
Case 1—J. H. J., age 55; while eating beef three days before coming to hospital felt something sticking in esophagus. Since accident he has had pain on swallowing; some

regurgitation of food and blood-tinged material has been brought up at times. Symptoms have been progressively worse, so that he could only take liquids.

Examination by X-Ray showed a foreign body at lower end of esophagus. Esophagoscopy revealed an irregular piece of beef bone about $2\frac{1}{2}$ to 3 MM in size at the cardiac stricture.

Removed with forceps.

Case 2—B. P., age 14 mos.; swallowed a quarter. Lodged at crico-pharyngeal stricture. Removed easily through esophageal speculum.



ESOPHAGUS IN RELATION TO DIAPHRAGM AND STOMACH
(QUAIN AFTER TESTUT)

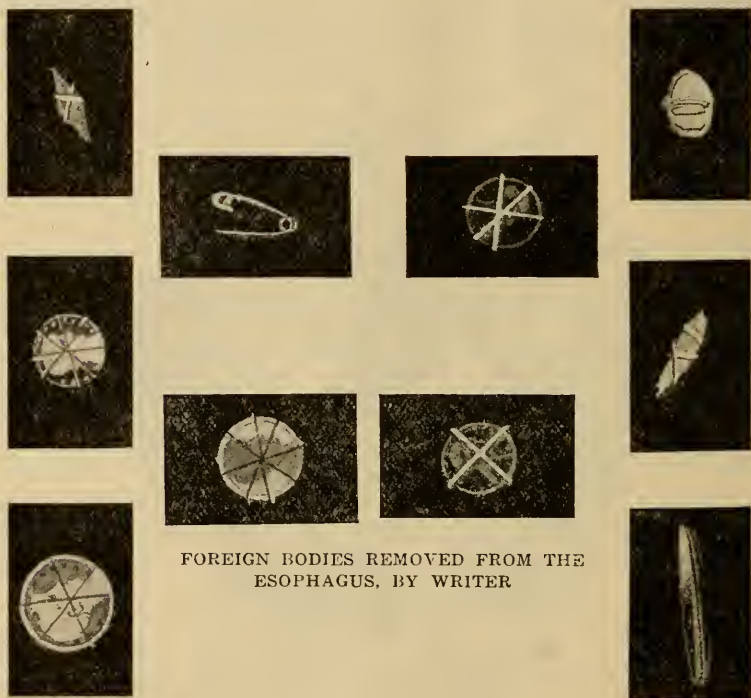
Case 3—C. B., age 3 yrs.; swallowed a penny. Located at upper constriction of esophagus. Removed without difficulty.

Case 4—G. H. K., age 2 yrs.; attempted to swallow an open safety pin. It was found at upper part of esophagus and removed without complications.

Case 5—Mrs. B. F., an old lady of 65; dropped her breastpin in some food and on account of poor vision did not realize what had happened until the pin had been taken in her mouth, when it slipped into upper part of esophagus. Easily removed.

Case 6—D. M., age 16 mos.; swallowed a penny, which lodged at crico-pharyngeal constriction. Removed without anesthesia.

Case 7—C. M., age 18 mos.; had been sick for two months with an undiagnosed condition. There had been attacks of vomiting and considerable difficulty in swallowing. Frequent cough, and in past two weeks symptoms of wheezing and



FOREIGN BODIES REMOVED FROM THE
ESOPHAGUS, BY WRITER

interference with breathing were in evidence. Family physicians were changed and the second doctor had an X-ray made of chest, which disclosed a fancy double-ended lapel button in the esophagus.

Case 8—A. G., age 44; felt something sticking in his throat after eating some chicken. Painful swallowing and soreness in throat. X-Ray examination failed to show foreign body, as the bone was thin and soft. Esophagoscopy showed a small, thin piece of chicken bone at upper stricture of esophagus.

ECONOMIC USE AND RECOMMENDATION OF PLATINUM BASE FOR DENTURE CONSTRUCTION

BY A. Y. RUSSELL, D. D. S.

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The recent general demand for substitute dentures has served to set the profession of dentistry to thinking on the subject of the suitability of the various materials commonly in use at this time as base materials for denture construction. Investigators have already given time and serious attention to vulcanite, the most universally used material for plate construction for many years past.

The weak points of vulcanite have been apparent from the beginning of its use by the profession, as a base for denture construction. Normal shrinkage and contraction under manipulation have been overcome to some degree by the employment of thoughtful and exact technique; however, its well-known non-conductive property and the unsanitary conditions resulting from this cannot be eliminated. In view of the objections registered above it is safe to predict that vulcanite as a base for denture construction in the future will be replaced by something less faulty in its composition and qualities as a carrying base of lost masticatory organs in the human mouth. Besides, it is safe to forecast the curtailment of vulcanite as a satisfactory material for use for this purpose, once a full and complete report of the findings of those making an investigation of its status from a sanitary standpoint is given out for publication.

Gold as a base for dentures has its disadvantages. They are, in the main, shrinkage when cast, lack of perfect adaptation when swaged and not always easily kept clean.

In days that appear to be gone forever, when platinum was much less expensive than at present, this material was not infrequently employed in the construction of saddle bridges with this material in close contact with soft tissue. Such use of platinum demonstrated the kindly effect of the metal on the tissue, and on removal invariably revealed a bright metal surface, with no accumulation of secretion and mouth debris and tissue on which the saddle rested, always showing a normal, healthy state or condition. Such results have not always been the case when gold or other materials have been used and made to impinge on gum tissue. The outstanding objections to platinum are its cost and difficult manipulation.

Based on the above observations and experience with platinum, I am assuming to recommend this metal as the most

promising base for denture work, and the following technique is given for its satisfactory manipulation:

Get a correct impression, make a good cast, take dead soft platinum sheet of 1-1000" thickness, burnish securely to the cast; follow this by swaging until all detail is copied and the foil no longer buckles, but is well seated and remains in place. This thin platinum foil should cover the vault of the model and extend to the crest of the alveolar ridge, at all points of its circumference. In small cases, presenting no definite under-cuts, and which will not require rebasing, the foil may extend to the peripheral border.

The platinum foil should then be fluxed and a sheet of wax of the desired thickness placed over the entire surface of the platinum on the side which will be in contact with the tongue, leaving uncovered or exposed a small margin of the platinum periphery to be engaged by the investment material and thus prevent the later gold or other casting from extending to the palatal surface of the foil matrix. All necessary attachments for vulcanite, etc., must be provided for and wax spru adjusted at this point in the procedure.

After all details of the technique heretofore described have been carefully carried out, it will then be in order to invest the piece, later dissipating the wax by low heat and by the use of a centrifugal casting machine of sufficient size and calibration to insure flow and distribution of selected metal at a scientifically predetermined pressure, the casting may proceed.

A base produced by this method has all the advantages of an all-platinum piece, as the platinum surface in contact with the tissues of the mouth remains clean and the all-metal base serves as a conductor of heat and cold. The hard cast-gold or other metal attached to the thin matrix of platinum gives sufficient rigidity and strength to the base, while the layer of platinum controls to a great extent the direction of shrinkage, thereby producing a more accurate base.

Such a base should allow almost normal tissue stimulation from hot and cold food taken into the mouth and permits radiation of bodily heat, thereby eliminating the burning sensation and irritation so frequently encountered in patients wearing dentures constructed from vulcanite.

With an accurate base, such as described, made of material which promises absence of debris accumulation on its surface, and thereby giving a maximum of cleanliness in the oral cavity, together with its good conductive properties, may we not reasonably expect to prevent osseous changes, irritated gum tissue and the frequent unsanitary conditions prevalent in many mouths resulting from the adaptation of substitute dentures made from unsatisfactory materials?

AN ANALYTICAL STUDY OF EXTRACRANIAL
ANEURISM OF THE INTERNAL CAROTID
ARTERY OF THE ARTERIO-
VENOUS TYPE

BY NATHAN WINSLOW.

From the Surgical Department of the University of Maryland

In this the fifth instalment, and last, of my serial on extracranial aneurism of the internal carotid artery, I have attempted to collect those cases listed in the literature as arterio-venous. Twenty cases were all I could find, of which 19 were males and 1 a female. The ages of 11 only were recorded. The youngest was 20 and the oldest 48 years of age. Eight were in their twenties, 2 in their thirties, 1 in his forties; 7 were described as soldiers and 2 as men. All were the result of some sort of trauma. Nine times it was caused by bullets, 4 times by shrapnel, once by a stab wound, 4 times by war wounds not described, and twice by trauma. Twelve occurred as the result of injuries received in the World War. It is notably a disease of young adults, a large proportion of whom were soldiers. Seventeen were subjected to some form of radical vascular surgery, without mortality. Three were not operated upon, with a death rate of 100%. One died 30 hours after the receipt of the injury from cerebral softening and epilepsy, one succumbed 44 days after the accident of anthrax and one ended fatally about three weeks after the injury. If these figures have any value, which they must, because the contrast between the 2 series is too great to be without significance, they greatly simplify our plan of treatment. No mortality against 100% failure leaves no doubt as to the proper procedure to adopt in the presence of an arterio-venous aneurism of the extracranial portion of the internal carotid artery. A noteworthy feature of the operative series

*First instalment, Bulletin School of Medicine, University of Maryland, 1922, vii, 84.
Second instalment, Bulletin School of Medicine, University of Maryland, 1923, vii, 125.
Third instalment, Bulletin School of Medicine, University of Maryland, 1923, vii, 171.
Fourth instalment, Bulletin School of Medicine, University of Maryland, 1923, viii, 88.

was the variety of methods employed, apparently with equal success, viz,

Ligation	C. C. A., E. C. A and I. J. V.....	1 case
	C. C. A., E. C. A., I. C. A. and I. J. V. (Double).....	2 cases
	I. C. A.	1 case
	Quadruple.....	1 case
	Quadruple, extirpation of sac.....	1 case
	C. C. A. and I. J. V., obliteration of rt. lateral sinus by tampon.....	1 case
	C. C. A., I. C. A., V. A., incision of sac, gauze packing.....	1 case
	I. C. A. with aluminum band.....	1 case
	Division of I. J. V. at base of skull, I. C. A. narrowed by muscle sling later ligated proximally.....	1 case
	I. J. V. below lesion, tamponing of lateral sinus through a trephinement opening in mastoid, C. C. A.....	1 case
	C. C. A.....	1 case
	I. C. A. and lateral sinus.....	1 case
	C. C. A., E. C. A., splitting of sac packing.....	1 case
	Vessel suture no data given.....	1 case
	Suture of vent in vein, plication of sac over hole in artery.....	1 case
	I. J. V. above and below lesion, arter- iorrhaphy, and capping with sac wall..	1 case

A most interesting and instructive study of this injury in the British soldier has been incorporated in the Official History of the Great War, Medical Services, Surgery of the War, Lond., 1922, vol. ii, p. 230. It states: Cerebral complications must be divided into two categories, those that directly follow the injury and those secondary to ligation of the vessels. In the former the cerebral anemia follows obstruction to the blood vessels by thrombosis or embolism. Of the two occurrence of thrombosis is the more serious accident, since beyond the occurrence of a local obstruction the clot mass extends into the whole length of the middle cerebral vessels and its branches, while an embolus may only obstruct one or more of the branches and thus give rise to an area of anemia not only more limited in extent, but also possessing the advantages dependent on the existence of a collateral circulation. Local obstruction due to ligation of the artery gives rise to a pure anemia uncomplicated by any lesion of the cerebral vessel; hence it may be of a more evanescent nature and may disappear with the general rise in the blood pressure leaving no serious consequences behind. The mode of onset of symptoms after ligation of the common or internal carotid is fairly constant. As a rule the cerebral symptoms are either immediate or are noticed in the course of a few hours after the application of the ligature, but it may occur even after a more remote period.

TABLE I.

No.	SURGEON REFERENCE	SEX, AGE, SIDE	DURA- TION	OPERATION DATE	CURED	DIED, CAUSE	REMARKS:
1	Keen: Med. and Surg. Re- porter, Phila., 1894, lxx, 380.	M 3 years 25 L	3 years	Lig. C.C.A., E.C.A. and I.J.V. 8-15-1893.	Yes	.....	The patient was shot 3 years previously, the ball entering just below the tip of the left mastoid process. He was unconscious for a brief time; the next day he was blind in the right eye and the right arm was paralyzed. He was seen August 9, 1893. Then he exhibited contractures of the right arm, aneurismal bruit, thrill, felt down the left side of the neck. There was but little external swelling. He sought relief from a persistent noise in the ear which prevented him from working. Post-operatively no mental disturbances, no paralysis except slight prosis, pupil not affected, responded to light. Discharged about the middle of Sept., 1893, practically cured.
2	Janssen: Kiel, 1903, p. 11, press of Schmidt & Klaunig.	M 4 days 21 L	4 days	Lig. C.C.A., E.C.A., I.C.A. Yes S.T.A. and I.J.V. (double). 8-22-1902.	Yes	.....	Patient was stabbed, Aug. 17, 1902, in the left side of the neck behind the angle of the jaw. He was seen Aug. 21, 1902 and presented a pulsating swelling behind the angle of the jaw in front of the sterno-cleido-mastoid muscle which was elastic to the touch and exhibited a thrill and souffle. As he was in a dangerous condition the vessels of the neck were exposed and ligated. When the sac was opened there was an escape of arterial blood. This was followed by the discharge of venous blood. Wound closed after providing for drainage. No untoward symptoms followed save an inequality of the pupils which was still present when the man was discharged, Sept. 20, 1902, to the outpatient department.
3	Cushing in Callander: Johns Hopkins Hosp. Reports, 1921, xix, 301.	M 28 R	.....	Lig. I.C.A. In 1905.	Yes	.....	After four years improvement.
4	Bland Sutton: Br. J. Surg., 1915, iii, 490.	F 7 weeks 27 L	7 weeks	Quadruple ligation. 12-5-1914.	Yes	.....	The injury was the result of an accidental bullet wound. It gave rise to swelling, loud buzzing in the left ear, thrill, murmur. After operation the patient did well until Dec. 10, 1914, then developed paralysis of the right leg diplopia, paralysis of the right arm, papillitis with hemorrhage and double optic neuritis. April 15, 1915 the sight was rapidly failing. The symptoms were attributed to intracranial pressure and thrombosis of the cavernous sinus.
5	Haberer: Arch. f. klin. Chir., 1916, cvii, 662 and Wien, klin. Wochsft., 1914, xxvii, 1477.	M About 5 32 weeks R	About 5 weeks	Quadruple ligation and ex- tirpation of sac.	Yes	.....	Soldier, wounded Aug. 23, 1914, wound of entrance on left side of face, exit right side of neck; at time of receipt free hemorrhage of short duration. Weakness in left extremities, dizziness, general headache, from angle of right jaw downwards to middle of sterno-cleido-mastoid muscle, a whirling swelling below which the carotid pulsated normally; paralysis of the right sympathetic nerve, damage to the right vagus. After operation the headache was relieved, the paralysis gradually cleared up and the patient was reported Oct. 28, as cured.
6	Bier: Dent. med. Wochsft., 1915, xli, 122 and 123.	M Less Sol- than 8 dier months more than 3	Less than 8 months more than 3	Vessel suture but not de- scribed. In Oct. or Nov. 1914.	Yes	.....	The article contains no definite description of the case merely mentioning it. The patient was disturbed both night and day by a roaring in the head. The author states that during the short space of two months terminating Dec. 1, 1914, he had operated on 44 aneurisms in 43 patients amongst them being the above. He also mentions he saw a similar case in consultation.

No.	SURGEON REFERENCE	SEX, AGE, SIDE	DURA- TION	OPERATION DATE	CURED	DIED, CAUSE	REMARKS:
7	Gilson-Hermann: Jl. belge de Chir., 1914, Sol- xiv.71, quoted by Lenor- dier, J. de Chir., Par., 1921, xvi, 138.	M ..... .....	..... ..... .....	Lig. 3 carotids and I.J.V. Yes above and below.	Yes	.....	Ball wound of the neck, two months later the appearance of pulsation and thrill without tumor.
8	Lannois and Patel: La Caducee, 1915, xv, 127.	M 22 R	8 months	Lig C.C.A. and I.J.V., ob- literation of right lateral sinus by tamponade. 4-22-1915.	Yes	.....	Soldier wounded by a musket ball in the left occipital region, February 28, 1915. The man presented these symptoms: bleeding from the left ear from a ruptured tympanic membrane, complete deafness in the left ear, left facial and spinal-accessory paralysis, also of the left recurrent laryngeal nerve. A radiograph did not discover the projectile. The soldier left the hospital, March 16, from which time till Oct. 5, 1915, he was an inmate of several hospitals for various ailments. On the last mentioned date while undergoing an examination for deafness, a purple tumor which pulsed violently was discovered in the floor of the external auditory canal. Upon the first stroke of the curet a profuse hemorrhage issued therefrom which was only brought under control by tamponing. The patient was now invalided to a base hospital. October 25, 1915, the man was anesthetized and the internal carotid artery exposed. As pressure on this vessel did not entirely control the bleeding it was supposed the blood came from the internal jugular vein, so a rapid trephinement was made, the left lateral sinus laid bare and ligated. By this procedure the escaping blood was almost entirely stopped. As the bleeding recurred at each dressing and a souffle persisted and a pulsating tumor remained in the floor of the external auditory canal, the internal carotid artery was again isolated, November 10, and this time ligated. The ligature was borne without the least immediate or remote trouble. The patient was discharged in Feb., 1916, and returned to the auxiliary service in April.
10	Ortenberg: Muench.med.Wochstf., 1917, lxiv, 237.	M 24 L	.....	Lig. C.C.A., I.C.A. and V.A., incision of sac and packing with gauze. 11-1-1916.	Yes	.....	In this case the aneurism involved the internal carotid artery, the vertebral artery and the lateral sinus. The patient a Rumanian prisoner received a shell wound of the neck, Sept. 2, 1916. Forty days later he was transferred to a base hospital. He had previously been operated on for a swelling in the neck believed to be an abscess. As a free hemorrhage occurred the wound was closed by suture and firm compression exercised. Examination revealed a wound of entrance 2 cm. to the left of the 4th cervical vertebra. The entire left side of the neck was occupied by a powerfully pulsating swelling. At operation the common and internal carotid were exposed and loose ligatures thrown around them. Next the subclavian artery was uncovered and the vertebral located. This vessel was ligated immediately just before it entered the 6th vertebral foramen immediately below the aneurismal sac. Pulsation became weaker, but did not completely stop until the internal carotid was also ligated. Believing that the blood supply to the sac had been completely blocked it was uncovered and laid wide open. Immediately there was a severe hemorrhage, for the control of which the ligature around the common carotid was tightened, the sac emptied of its contents and the removal from the bottom of the sac the fragment which had fractured the occipital bone and torn the lateral sinus, assisted by tampons against the source of the bleeding and partial closure of the wound. Despite the cutting off of the entire blood supply to one half of the brain the patient made an uneventful operative recovery. For a time the man lost the use of the right leg below the knee. By the end of January he was reported as completely cured. The paralysis was attributed to a small area of softening in the left hemisphere.

11	LeFort; Bull. del'Acad de med., Par., 1917, 3. s., lxxviii, 108.	M 3 months	L	Lig. I.J.V. above and be- low opening into artery; incision into sac, suture of hole, capped by wall of vein. 7-20-1917.	Yes	.....	Man wounded April 17, 1917, by a bullet, thrill in left side of neck, arrested by pressure on vessel, laring of the head; increasing symptoms demanded operation, temporary control of circulation through common, external and internal carotids, section of internal jugular vein between ligatures, splitting of sac, recognition and suture of aperture in artery, capping line of suture by wall of vein as a reinforcement, circulation restored through carotid as soon as compression was removed, no nervous phenomena after operation. The patient was so well pleased with the result that he wished to be discharged on the 5th day after the intervention.
12	Soubeyran; Rev. gen. de clin. et de thera.; JI. des Praticiens, 1917, xxxi, 376.	M L	L	Lig. C.C.A., E.C.A., split- ting of sac, removal of clots, packing for leakage of blood. 5-12-1917.	Yes	.....	A diffuse swelling occupied the left parotidæan loge, caused by a bullet. It was activated by neither beats nor souffle. A hemorrhage had occurred from the ear and blood was obtained on aspiration. A fistula was present behind the left mastoid process. First the external carotid was ligated and the sac split, but the blood con- tinuing to trickle, the common carotid was tied and the slit in the sac lengthen- ed, the clots removed: as oozing still continued, though darker in color, the sac was packed. The cure was complete and without facial paralysis.
13	Heuer in Callander; Johns Hopkins Hospital Reports, 1921, xix, 302.	M R	R	Lig. of I.C.A., by alumi- num band. In 1917.	Yes	.....	The band almost but not completely closed the lumen of the artery.
14	Suchanek; Arch. f. klin. Chir., 1918, ex, 682.	M About 6 months R	R	Lig. and section of I.J.V., near base of skull; attempt at narrowing I.C.A. by muscle sling from sterno- cleido-mastoid. Six days later lig. I.C.A., proximally.	Yes	.....	Soldier with gunshot wound of the face and spastic paralysis of the left side of the body was admitted to the hospital 5 months after the receipt of the in- jury. He complained especially of roaring in the right ear. Examination disclosed a loud bruit over the internal jugular vein which ceased on com- pressing the vein above. The first operation was performed under local anesthesia 25 weeks after the receipt of the injury. With the execution of the ligation of the vein the roaring in the ear ceased. Desirous at this time of only a partial occlusion of the artery, a piece of muscle about the thickness of a finger was loosened from the sterno-cleido-mastoid and carried around the artery. Two days later the piece of vein above the ligature through distention with arterial blood took on the characteristics of a genuine arterial aneurism. Pulsation became ever plainer and the overlying soft structures thinner and thinner. Fearing rupture the internal carotid was ligated. There was no further increase in the size of the swelling. At the end of 20 weeks the patient was sufficiently improved to go home. The paralysis under suitable measures, electricity, massage, etc., was improving. Despite an existing hemiplegia which induced the employment of the less radical method, no distressing features were observed when the circulation was totally cut off.
15	Gault; Congres français d'oto- rhino-lyng., xxvi, noted by G. Gaumont; JI. de Chir., Par., 1921, xvii, 136.	M L	L	Lig. I.J.V. below the la- sion, tamponing the le- teral sinus through a tre- panation opening in the mastoid. Next day lig. of C.C.A.	Yes	.....	Large shell wound, profuse secondary hemorrhage from the pharynx, intraphar- ngeal compression then operation.

No.	SURGEON REFERENCE	SEX, AGE, SIDE	DURA- TION	OPERATION	DATE	CURED	DIED, CAUSE	REMARKS:
16	..... Official History of the Sol- Great War — Medical dier Services — Surgery of the War, Lond., 1922, vol. ii, 243.	M	.....	Lig. C.C.A.		Im- proved	.....	The common carotid artery was tied for an arterio-venous aneurism of the internal carotid artery and internal jugular vein. No cerebral disturbances followed but the actual result on the aneurism was doubtful. It is mentioned the wound healed well and the aneurismal tumor diminished in size.
17	..... Official History of the Sol- Great War — Medical dier Services — Surgery of the War, Lond., 1922, vol. ii, 237.	M	6 weeks	Suture of vent in vein, pli- cation of sac.		Im- proved	.....	A piece of shrapnel entered at the angle of the left mandible and was retained opposite the disc between the 3rd and 4th cervical vertebrae. An arterio-venous aneurism formed together with a left sympathetic paralysis. It was not possible clinically to determine whether the internal or the external carotid was involved. Six weeks later the aneurism was explored the sac was found interposed between the internal jugular vein and the lower end of the internal carotid artery. When the control ligatures had been tightened, the sac was opened, but free bleeding occurred necessitating clamping of the ascending pharyngeal and superior thyroid arteries. The opening in the vein was sewn up, but as the operative field could not be kept free of blood on the arterial side, instead of removing the sac it was quilted and the hole in the artery thus closed. The future progress was uneventful. The patient got up at the end of the 3rd week. There remained, however, some thickening at the site of the sac and a hoarse, systolic bruit, but both were steadily improving. The plication of the sac, though it facilitated the operation was said to have been unsatisfactory.

TABLE II.

No.	SURGEON REFERENCE	SEX, AGE, SIDE	DURA- TION	OPERATION DATE	CURED	DIED, CAUSE	REMARKS:
18	Joret: Gazmed. de Par., 1840, 2. s., viii, 457.	M 30 35 months L				Cere- bral softening and epilepsy.	Man wounded in the right side of the face May 2, 1835, and died October 23, 1837. The injury was received in a duel, the weapon being a pistol. Although the ball entered the right side of the face the vessels of the left side of the neck were the ones involved. About the fourth month after the duel, apoplegia, epileptiform seizures and tumor the size of a pigeon's egg became apparent with thrill and pulsation perceptible to both the physician and the patient. Autopsy showed an arterio-venous aneurism of the vessels under discussion. The ball was found encapsulated in the internal jugular vein. The left cerebrum was soft and the lungs edematous.
19	Giraldes: Bull. Soc. de Chir. de Par., 1854, v, 70.	M 1 Man month L		.....		43 days an- thrax	This man was shot, June 15, 1854, in the upper part of the left side of the neck with a pistol. The injury was accompanied by swelling, thrill and murmur. The patient remained nearly a month in a hospital. He returned soon after discharge on account of an anthrax infection, to which he soon succumbed. At autopsy an arterio-venous aneurism of the internal carotid artery and internal jugular vein was found. The ball was in the sac adjoining the artery to the vein.
20	De Raffele: La Riforma Medica, Na- poli, 1920, xxxvi, 345.	M About 20 3 weeks R		.....		Sept. 30, 1916, abscess of the brain.	Soldier wounded, July 11, 1916, was admitted July 20, for treatment. The wound of entrance was located in the right side of the head and of exit behind the ascending ramus of the jaw. The cranial wound was discharging cere- bral matter admixed with a seropurulent exudate. The parotidian region was occupied by a weakly pulsating swelling. To touch it was elastic in consistency, expansile throughout and exhibited a thrill. On auscultation a systolic blow was heard. When compression was initiated against the common carotid the souffle became weaker. Digital exploration of the pharynx demonstrated the presence of a small, oval, soft tumefaction in the right pharyngeal wall. The mass bulged into and slightly constricted the lumen of the pharynx. In addition there was a slight psois of the right lid, weakness of the right facial muscles, interference with speech, annoying noises in the wound was done and the wound in the neck was covered with medicated dressings. With the view of testing the cerebral circulation compression of the primitive carotid was tried for five minutes but gave rise to dangerous symptoms. Several repetitions of the test were with similar results, so arterial surgery was withheld. The man gradually failed and died September 30, 1916. Autopsy revealed several abscesses of the brain, and an arterio-venous aneurism of the internal carotid artery and internal jugular vein situated about 4 cm above the bifurcation.

In cases of arterio-venous aneurism the artery and vein have been as a rule simultaneously tied above and below the sac. This procedure has not been observed to exert any deleterious influence; on the contrary, the results have been uniformly good. Suture of the vessel is the ideal procedure. It is not however advisable when more than one-third of the circumference of the vessel has been destroyed, unless it is practical to resect the injured portion and make an end to end union. The application of flaps of vein wall or other tissue is not a good procedure, as it tends to favor subsequent contraction. The question has arisen as to the most propitious time to operate, early or late. Lavenant (*Paris Chir.*, 1919, xi, 369) favors delayed operations in the belief that this plan gives the best chances for life; but better still he says is an operation which restores the current in the artery.

Whilst the following cases may properly belong in the tables, they are too lacking in data to be included. I have, however, thought them sufficiently suggestive to be cited here. The reason for their deletion will be mentioned in each case report as it is presented. Rost (*Muench. med. Wochsft.*, 1917, lxiv, 949) describes a case of arterio-venous aneurism of the internal carotid for which he did a ligation, but the article did not say whether the lesion was intra- or extracranial, merely stating that the patient who was exhibited before the *Naturhistorisch-medizinischer Verein z. Heidelberg*, (*Medizinische Sektion*) at its February 6, 1917, meeting, was cured. Tillaux (*Gaz. des hôp. civils et mil.*, 1890, lxiii, 78) reports the case of a young man who had received a revolver wound in the left parotid region, July 14, 1888, and was presented before the January 15, 1890, session of the *Soc. de chir.* Before long there appeared an arterio-venous aneurism, as Tillaux thought, between the internal carotid artery and the internal jugular vein. No tumor could be discerned, but a thrill was manifest at the angle of the jaw. The patient sought relief for pain in the head. Tillaux desired the advice of his colleagues. After a thorough discussion of the case, it was decided to withhold operation. The next case, I also thought too doubtful for statistical purposes. I found it recorded in the *Official History of the Great War—Medical Services—Surgery of the War*, Lond., 1922, vol. ii, p. 225. The patient, a soldier, received a small incised wound over the left sterno-cleido-mastoid muscle at the angle of the jaw from a fragment of shell on May 19, 1915. It was stated that the aneurism occurred early, that the temporal pulses were equal and that an embolus was present. The right pupil was dilated and the left palpebral fissure narrowed. There was a slight weakness of the right side of the face, loss of power of movement in the right upper

extremity, he could not move the right lower extremity on command, but withdrew it on pricking the sole of the foot. There was no improvement of the condition. Whilst no reference is made to an operation it seems reasonable to infer that one was done. The cerebral symptoms occurred soon after the receipt of the wound.

Grégoire et Mondor (*Rev. de Chir.*, Paris, 1918, lv, 358) cite the following very suggestive case. The patient, a Japanese soldier, was wounded August 20, 1917, by a fragment of shell which penetrated the neck in the left stylomastoid region. There was extensive tumefaction in the vicinity of the parotid gland and beneath the angle of the jaw. Here there was an expansile pulsation beating synchronously with the pulse and a shrill bruit associated with a diffuse thrill. A skiagraphic examination located the projectile resting near the base of the skull close by the styloid process. As soon as the skin was incised (August 29, 1917) a pocket was opened, from which escaped a current of blood. This was controlled by tamponing the orifice. The common carotid artery was then freed from a maze of infiltrated tissue and the dissection carried as far as its bifurcation, but it was impossible to isolate the internal carotid from the external. The primitive carotid was therefore tied just below its division. No cerebral disturbances occurred and pulsation and thrill immediately ceased, but on removing the tampon from the rent in the sac the hemorrhage recurred, but in a reduced amount. The projectile was giving no trouble, so was left undisturbed and the wound closed. The mastoid process was now trephined, the lateral sinus exposed, opened and packed, with a diminution in the volume of the tumefaction. Because of infection, the cervical wound was reopened on September 1, 1917. The patient was eventually evacuated to the rear cured. Makins (*Arch. méd. et de phar. milit.*, 1919 lxxi, 369 and 375) states he has observed 57 traumatic aneurisms of the carotids, of which 47 were arterio-venous. Of the latter, 37 concerned the common carotid, 6 the external and 4 the internal. No data accompanied the statement.

In concluding the study of aneurisms involving the cervical portion of the internal carotid artery, I present the case of Arnould, which could not be tabulated under any of the preceding heads, and a report by Portmann and Dupouy, which was published too recently to be included under its proper group. Arnould (*Bull. et mém. de la Soc. anat. de Par.*, 1914, lxxxix, 168) describes a specimen discovered accidentally in a dissecting room subject. He was ignorant of the clinical symptoms it evoked during the life of the patient. The preparation was that of a capsulated aneurism of the right

internal carotid artery and was removed from the upper part of the neck. Its superior pole reached to within a centimeter and a half of the outer orifice of the carotid canal. It was the size of a hazel nut, and at its widest point about treble the normal calibre of the artery. The pouch communicated with the vessel by means of an orifice sufficiently large to admit the beak of a sound. The walls did not seem altered other than being somewhat thinned. The ninth, tenth and eleventh cranial nerves and the carotid filament of the sympathetic were intimately adherent to the posterior surface of the sac. The opposite internal carotid did not present any apparent lesion. Other than the above facts, the author could add nothing. The case reported by Portmann and Dupouy (*Arch. méd. belges*, 1923, lxxvi, 97) was that of a man, aged 68, who presented himself at their clinic, October 24, 1922, with an expansile swelling in the left pharyngeal region back of the posterior pillar of uncertain duration. The buccal surface was smooth and covered by healthy mucous membrane. It was activated by beats synchronous with the pulse and extended below to the epiglottis and above was insensibly lost. It was elastic to touch, but not tender. There was no pain and no difficulty in swallowing or talking. The larynx was normal. The superficial temporal pulses on both sides were synchronous. The eye-grounds were not diseased. The Wassermann test was negative. The aneurism was fusiform. Unfortunately, no information is vouchsafed concerning the progress of the case nor the plan of treatment. Whilst not so described, the authors evidently believed it to be of spontaneous origin.

EDITORIAL

Mighty Oaks From Little Acorns Grow

In October, 1922, the Bulletin announced the inauguration of a fund in memory of the late Dr. Burt J. Asper, a member of the class of 1911. He was ship's surgeon aboard the ill-fated Cyclops, which, together with its entire crew, while on a return trip from South America, mysteriously disappeared, without leaving a trace behind them. The supposition is that the boat turned turtle, carrying its personnel with it to the bottom of the sea. Whether this surmise is correct or not, Asper died a martyr's death. He paid the supreme penalty of men who go down to the sea in ships, and under particularly tragic circumstances. The manner of his passing should be held as one of the dearest heritages of his Alma Mater. The highest calling of a university is the making of men. Failures in this obligation spells the forfeiture of the right to existence. In the crisis through which the United States has recently passed the products of the University of Maryland measured up to the standard of this test, and not the least among its graduates was Burt J. Asper. His untimely demise should be heralded as a precious inspiration to its future students by a befitting testimonial. The gifts to date fall far short of the total estimated as necessary for the creating of such a memorial. Nevertheless, despite the slow responses, we are not downhearted and intend to keep on plugging away, no matter how rough the sledding, until our dreams come true. It is the spirit actuating the giver, not the amount of the donation, that counts. Mighty oaks from little acorns grow. If each alumnus contributes his mite, the fund will soon reach healthy proportions. Since the last announcement the following subscription has been received:

Dr. Ralph J. Vreeland, 20 Church St., Paterson, N. J..	\$15.00
Already announced	150.00
Total	<u>\$165.00</u>

The Washington Dinner

One of the features of the Annual Convention of the Southern Medical Association, held in Washington, D. C., in November, just passed, was the alumni dinner of the three consolidated schools, now constituting the medical department

of the University of Maryland. The affair was pulled off at the Hotel Raleigh, Wednesday evening, November 12, 1923, and was attended by about 150 guests, all of whom expressed themselves as having had a most enjoyable time. Too much credit cannot be given to Doctors William Love, Herbert Blake, Robert Bay, Milton Linthicum and Noble P. Barnes for their parts in putting the reunion across in so successful a way. The Alumni Association is much indebted to these men, and the speakers of the evening, Dr. Russell, class of 1867, of Virginia; Dr. B. B. Ranson, of Harpers Ferry, class of 1869; Dr. Crist, of Orlando, Florida; Dr. Jones, of Wilmington, Delaware; our dean, Dr. J. M. H. Rowland, our genial president of the Alumni Association, Dr. MacConachie, and, last but not least, our witty ex-president, the toast-master of the evening, Dr. Linthicum, for the entertainment they provided. All of the speakers pledged their loyalty to the new University of Maryland and spoke most feelingly of their love for their Alma Mater. Surely all of those present left with the impression that the authorities of the University need only make its wants known and these men will joyously answer the call to any service within their power. They surely are most earnest in their concern about our future development and are most desirous of a larger and better University of Maryland. The next meeting of the Southern Medical Association will be held in New Orleans, Louisiana. It is hereby suggested that now is the time to make arrangements for a similar reunion in that city. A sociable evening is a most excellent way in reawakening the interest of our alumni in their school and aligning our forces for the work that is ahead of us.

The Charles W. Mitchell Fund

"Dear Doctor:—

An effort is being made to honor the memory of the late Dr. Charles W. Mitchell, formerly Professor of Medicine and Pediatrics in the Medical School of the University of Maryland. His friends desire to have his portrait painted and hung in the Medical and Chirurgical Faculty Hall of this city.

"Will you kindly assist us to raise the necessary fund for this well-deserved tribute. Your contribution, in cash, check or money order, drawn payable to **Charles W. Mitchell Fund**, should be forwarded to and will be acknowledged by

"Yours truly,

DR. L. E. NEALE,

"822 Park Avenue, Baltimore, Md."

Nearly one thousand of the above self-explanatory cards have been mailed to those whom it was thought would be interested in this matter, but as many may have been unintentionally overlooked the Bulletin lends its columns in hearty co-operation with this worthy movement.

Our space does not permit any eulogy on our late colleague, but we feel confident that Dr. Charles W. Mitchell endeared himself to all who really knew him, as a scholar, as a teacher and especially as a self-sacrificing friend and thorough gentleman of high attainments.

Such a portrait as is desired for this memorial tribute, in the opinion of the artists consulted, would require a fund of four or five hundred dollars.

One of the artists consulted made the suggestion that the proposed portrait be painted not only from a photograph of Dr. Mitchell, but also from a living model closely resembling him, if one could be obtained. Dr. Neale would be pleased to learn through any of our readers of a model deemed suitable for this purpose.

The Bulletin feels confident that the request set forth in the above card will meet a cordial response from the many friends and colleagues of the late Dr. Mitchell.

COMMUNICATION

Hayden, Arizona.

Things continue in the same rut here, but there are whisperings that the copper camps will soon open up. The weather has been so mild that I have tomato vines growing, but they were injured by a frost. Do not think that it doesn't get chilly here. The air is penetrating at times, although it is not actually cold, according to the thermometer. This is our rainy season, and, thank goodness, the weather is running true to form. Last winter there was not a single rain and in consequence the cattle strewed the ground on every side, as much due to lack of water as lack of food. The burros were so weak they could hardly drag themselves along, but the only dead one I saw had been killed by trappers to use as bait. There are large herds of Angora goats in these mountains. It surely was a pity to see the ground about the corrals littered with dead kids. Hayden is situated at the confluence of the San Pedro and Gila rivers. The Gila rises in New Mexico and the San Pedro flows north out of Old Mexico. The first Spaniards to penetrate Arizona came up the San Pedro Valley and crossed over the Gila near here on their way to

the Pueblo villages in New Mexico, which they had been given to understand contained fabulous amounts of precious stones and minerals. It was in search of this store-house of wealth that the Grand Canon was first come across, but they did not find what they were after. As Arizona today produces more than half of the copper of the United States and has tremendous mineral wealth of all kinds, they were surely "hot" all the time, if they had but known it. After the Mexican War the boundary was the Gila, but the Mexican Government was so hard up that it offered what is now the boundary for \$10,000,000—Lower California and most of Chihuahua and Sonora for \$25,000,000. As one mine at Bisbee, Arizona, has produced that amount of gold many times over, one can realize what a grand mistake the Solons at Washington made when they concluded the Gadsden purchase for \$10,000,000. The principal reason for taking in this increase of territory was because it gave a favorable railroad route across the continent, the Southern Pacific. About 85 miles from here, near Florence, is the remains of the Casa Grande Pueblo, which is estimated to be 1400 years old. I have not seen it yet, but want to do so. Those people were agriculturists and irrigated their fields from the Gila just as the modern farmers do, but as they made their ditches by scooping up the earth into baskets, they surely had a stiff job. In this State there are 14 different tribes of Indians. The only ones in this immediate vicinity are Apaches and Mojaves; the latter are a branch of the former. One day an Apache brought in an old Indian for medicine. The Apache could speak some pidgeon English and Spanish. When I asked him what ailed the old fellow he said, "Mucho malo en estomago." Asked for more definite particulars he jabbered to the other fellow for five minutes, when I lost patience and inquired what he had found out. He replied, "We no understand each other." Although they are said to be of the same race, they do not appear to talk the same lingo. It is mighty interesting in this part of the world, and the views are magnificent. The northern part of Arizona is entirely different from this, as they have rains there throughout the seasons, so have magnificent forests. Flagstaff appears to be the hub of a great circle of varied wonders—the painted desert, Grand Canon, petrified forests and wonderful scenery in general. There is also a town in this State called Winslow, but who or what he was I've never heard.

FITZRANDOLPH WINSLOW,

Class of 1906.

DEATHS

Dr. Addison K. Ross, Parkersburg, W. Va.; P. and S., class of 1885; aged 70; died September 13, 1923.

Dr. Claude De Vere Mulbury, Windham, N. Y.; B.M.C., class of 1898; aged 50; died suddenly September 5, 1923, of asthma and heart disease.

Dr. Charles W. Wainright, Princess Anne, Md.; P. and S., class of 1887; aged 65; died October 1, 1923, of heart disease.

Dr. Thomas Joseph McGuire, Parkersburg, W. Va.; B.M.C., class of 1897; served in the M.C., U.S. Army, during the World War; aged 53; was killed September 28, 1923, when thrown from his automobile.

Dr. Joseph E. Muse, Baltimore, Md.; B.M.C., class of 1888; aged 55; died November 16, 1923, from a complication of diseases.

Dr. Edward Cornelius Conroy, Andover, Mass.; B.M.C., class of 1897; aged 63; died recently, following an operation for gall-stones.

Dr. John Edward Allport, Los Angeles, Cal.; class of 1897; aged 60; died September 20, 1923, of heart trouble.

Dr. James M. Slaughter, Wildwood, N. J.; class of 1855; aged 89; died October 8, 1923, of heart disease.

Dr. Frank C. Hoffmeier, St. Joseph, Mo.; class of 1867; aged 78; died September 14, 1923, of senility.

Dr. Charles Franklin Smith, Muskegon, Mich.; B.M.C., class of 1898; served with the rank of Captain in the M.C., U.S. Army, during the World War; aged 50; died November 9, 1923.

Dr. Alpheus Wood Dissoway, Columbia, N. C.; class of 1905; aged 41; died November 2, 1923, from bullet wounds.

Dr. Samuel Latimer Phillips, Savannah, Ga.; class of 1885; aged 69; died November 2, 1923, of heart disease.

Dr. Edward W. Janney, Baltimore, Md.; class of 1863; aged 87; died November 27, 1923. He was a native of Virginia, and had practised his profession for more than 60 years in East Baltimore.

Dr. William Dawson Row, Carlin, Nevada; P. and S., class of 1883; aged 62; died September 19, 1923, of arterio sclerosis and diabetes mellitus.

Dr. Colin M. Lindley, Washington, Pa.; P. and S., class of 1886; Civil War veteran; aged 77; died September 30, 1923, of senility.

Dr. Lay Gordon Burroughs, Collinsville, Ill.; class of 1906; served in M.C., U.S.A., during the World War; aged 43; died October 7, 1923, of a fractured skull received in an automobile accident.

Dr. Arthur Cowton Heffenger, Lieut, M.C., U.S.N., retired, Portsmouth, N. H.; class of 1875; aged 70; died October 16, 1923, following a long illness.

Dr. Henry Clay Burnum, Trusville, Alabama; B.M.C., class of 1893; aged 54; died October 11, 1923.

Dr. Columbus Few, Hendersonville, N. C.; class of 1875; Confederate veteran; aged 75; died October 3, 1923, of senility.

Dr. Henry Morris Laing, Dallas, Pa.; P. and S., class of 1884; aged 61; died October 20, 1923, following a long illness.

Dr. William Quinton Kendall, Berlin, Ala.; P. and S., class of 1880; aged 64; died October 23, 1923.

Dr. Thomas S. Fawcette, Burlington, N. C.; B.M.C., class of 1892; aged 55; died in October, 1923.

Dr. Charles C. Lucas, Kearneysville, W. Va.; class of 1886; aged 62; died October 20, 1923.

Dr. Elbridge H. Gerry, Shrewsbury, Pa.; class of 1867; aged 86; died September 14, 1923, of cerebral hemorrhage.

BOOK REVIEWS

The Examination of Patients. By Nellis B. Foster, M. D., Associate Physician to the New York Hospital; Associate Professor of Medicine at Cornell University, College of Medicine. Octavo of 253 pages, illustrated. Philadelphia and London. W. B. Saunders Company, 1923. Cloth, \$3.50 net.

I can hardly give the reader of this review a better idea of the nature of the above described book than by quoting liberally from the preface. I do this the more willingly in that Dr. Foster's concepts dovetail so thoroughly with my opinion concerning the reasons for so many failures in diagnosis. He says: For the most brilliant discoveries in therapeutics or the most skillful surgery avail nothing if the patient's disease is not correctly diagnosed. Refinement of diagnosis compels the use of the trained senses of touch, sight and hearing. The development of the laboratory methods has diverted attention from these fundamentals. Those of us who have lived in laboratories as well as hospital wards may realize this fact, but the realization is not general. Rarely can a laboratory test alone reveal the nature of disease. Usually it is a support to other evidence—a bit of data like other signs to be weighed in forming opinion. The book,

then, is an effort to formulate a refined technic whereby those who follow the principles therein enunciated will be better prepared to make correct diagnoses. Sections are devoted to the Theory of Diagnosis; The Assembling of Data; The Physical Examination; System Examinations; Neurological Examination; Immunological Tests, etc. It tells in a simple, direct style how to assemble facts and what procedures are necessary to go through, how to eliminate the useless and how to weigh the valuable in arriving at a proper diagnosis. When face to face with an obscure problem some sort of a systematic plan of attack must be employed to track down the disease. The book is an assembling of the course Dr. Foster pursues when face to face with baffling diseases. It is a most meritorious book, very happily conceived and of a nature badly needed by the medical profession. It should prove very popular, as its 237 pages are full of helpful suggestions presented in a clear, logical, convincing style.

Physical Examination and Diagnostic Anatomy. By Charles B. Slade, M. D., formerly chief of Clinic in General Medicine, University and Bellevue Medical School. Third Edition, "thoroughly revised. 12mo of 179 pages, illustrated. Philadelphia and London. W. B. Saunders Company. Cloth, \$2.00 net.

This book is one of the best elementary expositions on physical diagnosis that has been written in recent years. It should serve excellently as a text-book for beginners in a course on physical diagnosis. As it should, it deals mostly with the findings in a normal individual, telling what to look for on inspection, percussion, palpation, auscultation, the surface markings and how to make the examination. Numerous well executed illustrations materially simplify the text and add to the attractiveness of the volume. It is a thoroughly trustworthy guide into the mysteries of the physical examination of the human body. Students will like it for its simplicity of style. We bespeak for the present edition as great a popularity as that enjoyed by its predecessors.

Mental Hygiene and the Public Health Nurse. Practical Suggestions for the Nurse of Today. By V. May MacDonald, R. N.; formerly Assistant Superintendent of Nurses, Johns Hopkins Hospital. With a Foreword by Thomas W. Salmon, M. D., Professor of Psychiatry, Columbia University. 12mo., of 77 pages. 1923. Cloth, \$1.50. Philadelphia and London. J. B. Lippincott Company.

Whether we like it or not, the mentally deranged are always with us. Fortunately, in recent years, men and women of ability and in sympathy with the more humane management of the psychiatric patient have come to the front and have

been doing a marvelous work in behalf of these derelicts. They have taught us that insanity varies in its intensity and that it is often gradual in its unfolding. They have likewise taught us that many of these sufferers, if obtained in the incipency of the malady, can be reclaimed and again become useful members of their communities. Many of the milder forms of mental derangements, while not curable by careful and scientific management, can be materially improved. The problem is to recognize these cases early and to institute treatment promptly. The subject has now assumed such importance that both the medical student and the pupil nurse have to have at least a minimum amount of information concerning the mental diseases more commonly encountered. Besides, the mentally deficient are heir to the same maladies as their more fortunate brothers, and when thus diseased require the attention of appreciative doctors and nurses. Miss MacDonald's book has brought together such information as her wide experience has determined will be most useful to the nurse, especially the public health nurse, in meeting the simpler problems with which she will be confronted when in contact with the insane. Every nurse can read it with profit.

A Syllabus and Note Book of Lectures On Obstetrics For Nurses Based On the Standard Curriculum For Nursing Education and Foote's State Board Questions and Answers For Nurses (Second Edition), and compiled from Cooke's Handbook of Obstetrics For Nurses (Tenth Edition). By Philip F. Williams, M. D., Obstetrician to the Maternity Hospital, Philadelphia. 1923. Philadelphia and London. J. B. Lippincott Company.

Pupil nurses and other nurses desirous of obtaining an insight into the science and art of midwifery, especially as it pertains to their profession, will find that the above mentioned book will meet their needs most excellently. It will also be found a most excellent reference book for those nurses about to stand their State Board examination. It gives us great pleasure in recommending it to our readers.

A Manual of the Practice of Medicine. By A. A. Stevens, M. D., Professor of Applied Therapeutics in the University of Pennsylvania. Eleventh Edition. Entirely Reset. 12mo. of 645 pages, illustrated. Philadelphia and London. W. B. Saunders Company. 1923. Cloth, \$3.50.

Stevens' Manual of the Practice of Medicine is too well known to need any eulogistics to add to its popularity. Eleven editions and many reprintings attest to its favorable reception by the medical profession. No surer sign of its having met a distinct need could be adduced than the rapidity with which each succeeding edition becomes exhausted. No radical

changes have been made in this volume. It is arranged upon the same general plan as its predecessors, differing from those only in that it has been brought as far as humanly possible up to date. In addition to the rewriting of some of the sections contained in the preceding volume, some new material has been incorporated, viz., articles on secondary hyperthyroidism, thromboangiitis obliterans, tumors of the lungs and pleura, botulism, epidemic encephalitis, etc. Students, as heretofore, will find it a thoroughly reliable and dependable adjunct in supplementing their lectures on medicine.

Introduction to Medical Biometry and Statistics. By Raymond Pearl, Professor of Biometry and Vital Statistics in the School of Hygiene and Public Health, and of Biology in the Medical School, The Johns Hopkins University. Illustrated. Philadelphia and London. W. B. Saunders Company. 1923. Cloth, \$5.00 net.

Biometry is a term which came into general use in the late nineties, to designate that branch of science which studies by methods of exact measurement on the one hand, and precise and refined mathematical analysis on the other hand, the quantitative aspects of vital phenomena. It is co-ordinate with biology—biometry dealing with the quantitative aspects of living things, biology with the qualitative. Its fundamental point of view is that, without a study of the quantitative relations of biologic phenomena, it will never be possible to arrive at a full and adequate knowledge of those phenomena. It insists that a description which says nothing about the magnitude of the thing described is not complete. It insists, also, that an experiment which takes no account of the probable error of the result reached is inadequate and as likely as not to lead to incorrect conclusions. Statistics is that branch of science which deals with the frequency of occurrence of the different kind of things, or with the frequency of occurrence of the different attributes of things. Biometry deals with statistics derived from living things, or things which at some time have been living. Vital statistics is the special branch of biometry, which concerns itself with the data and laws of human mortality, morbidity, natality and demography. The purpose of Pearl in writing this book is to show how the application of statistical methods may be of use to the medical profession in helping it to draw correct conclusions from facts and to solve problems constantly arising in his work, which he cannot possibly hope to solve without such methods. He says it is evident to every thoughtful observer that clinical medicine is proceeding along quantitative lines. To interpret the data thus accumulated it is necessary that the physician have at least an elementary

knowledge of the underlying principles upon which the science is based. Those seeking this information will find Pearl's book a trustworthy guide in overcoming the problems upon which medical statistics are founded.

Rubber and Gutta Percha Injections. By Charles Conrad Miller, M. D. Cloth, \$1.75 net. 1923. Chicago. Oak Printing and Publishing Co.

This is a preliminary report on the subcutaneous injections of the various forms of rubber and gutta percha for the purpose of correcting various nasal and facial deformities, together with a description of the several kinds of material used, their preparation and the type of syringe employed by the author. Whilst the method as suggested appears feasible, the author has not presented sufficient clinical evidence to substantiate his claims as to its practicability. The method may, however, with further experience prove a very useful means in treating the defects for which it is recommended.

Blood Chemistry. Colorimetric Methods, For the General Practitioner, with Clinical Comments and Dietary Suggestions. By Willard J. Stone, M. D. 1923. Cloth, \$2.25 net. New York. Paul B. Hoeber, Inc.

During the past few years the study of the constituents of the blood as an index of the kidney for performing its work has come with ever-increasing strides to the front. The profession now realizes that it is not what has passed through the kidney in the way of urea and other by-products of metabolism that counts, but what is being retained in the system. Every practitioner should know what non-protein blood nitrogen, blood urea, blood uric acid, creatinin, sugar, etc., signifies; the upper limits of safety of these constituents; the laboratory methods for determining their presence and the means for determining their amounts. Although the study of the chemical constituents of the blood for application to the solution of every-day clinical purposes has been a matter only of the past few years, these investigations have assumed a position of great importance not only in the direction of the treatment to be instituted, but also as a means for forecasting the probable outcome of the case under consideration. The methods at first used were cumbersome and time consuming, but have now been so simplified that they are easily performed in any moderately well equipped laboratory. In the above mentioned book Stone has collected and described the methods which up to the present time in his hands have proven the most satisfactory for making such estimates of blood-urea, blood sugar, etc. Those already familiar with this

kind of work will find the book most useful for reference purposes, whilst those about to engage in this field of effort will find it a clear and accurate guide.

Diathermy and Its Application to Pneumonia. By Harry Eaton Stewart, M. D., Attending Specialist in Physiotherapy, U.S. Marine Hospital, N. Y.; Consultant in Physiotherapy, U.S.V.B. Hospital, New Haven, Conn.; Director New Haven School of Physiotherapy Formerly Assistant Director, Section of Physiotherapy, Office of the Surgeon General, U.S. Army, and Supervisor of Physiotherapy, Bureau of U.S. Public Health Service, Washington. With Forty-five Illustrations and Fifteen Charts. New York. Paul B. Hoeber, Inc. 1923. Cloth, \$3.00 net.

This book is based on two years' experience in the treatment of pneumonia with diathermy at the U.S. Marine Hospital, No. 21, Staten Island. The author is modest in his claims, withal the results are certainly very gratifying. He seems to have something worth while and before condemnation the method should be given a thorough trial by the profession. At best the results in the treatment of pneumonia have heretofore been rather disappointing. By the use of diathermy Stewart has apparently reduced the mortality beyond our fondest expectations. If the use of this agent has proven so startling in his hands, others should obtain at least as good results. In order that the treatments may be applied intelligently, the author has included a short account on the physics, physiological effects and therapeutic indications on both medical and surgical diathermy. He backs up his results with a large number of detailed case-reports. The field of diathermy is daily becoming more and more extended. It is a scientific agent when properly employed. Those desirous of becoming better informed concerning this subtle form of electricity will find great satisfaction in this book.

ANNOUNCEMENT

Review Courses for Physicians, 1924.

The Division of Medical Extension of the University of Maryland offered, during June and July, 1923, for the first time, a series of short courses to the physicians of the State. These courses were well received by the practitioners, and there have been many demands for their continuance.

Due to the brief duration of the courses they are not planned to enable general practitioners to become specialists, but rather to meet the needs of those wishing to review the fundamental data in some field or to inform themselves of recent methods of diagnosis and treatment.

The courses last year covered, by means of clinics, lectures, and bedside discussions, the following subjects:

MEDICINE.

- a. Diseases of the Circulatory and Respiratory Systems.
- b. Clinical Pathology.
- c. Pediatrics, with especial attention to Infant Feeding.
- d. Gastro-enterology.

SURGERY.

- a. Diagnosis of Surgical Conditions.
- b. Urology.
- c. Diseases of the Nose and Throat.

SPECIALTIES.

- a. Diseases of the Eye and Ear.
- b. Practice of Obstetrics.
- c. Gynecological Diagnosis.

It is the purpose of the Extension Division this year to repeat the courses given last year at about the same date, and to offer some additional ones, including a course on the Dietetic and Insulin Treatment of Diabetes.

Applicants for admission must be registered physicians in good standing. Since the number of registrants must be limited, preference will be given physicians registered in Maryland. The charges for these courses will be nominal.

A detailed announcement will be made in a later issue of the Bulletin. Questions may be addressed to

DEAN OF THE MEDICAL SCHOOL,
University of Maryland,
BALTIMORE.

SUPPLEMENT TO THE OFFICIAL PUBLICATION OF
THE UNIVERSITY OF MARYLAND

Bulletin of the School of Medicine

JANUARY, 1924

The following information is called to the attention of the alumni of the University:

Messrs. Shriver, Furst, Judge Frank and Messrs. Shoemaker and Brooks entertain at dinner at the Merchants' Club on January 12, 1924.

Faced by the serious situation in which the University is placed, these friends of the school issued invitations to representatives of a number of organizations of the City of Baltimore and various counties to meet in Baltimore to consider the functions and the needs of the University and to aid by their counsel in the formation of tentative plans for the relief of its necessities.

At this meeting a hundred representative citizens unanimously voted for the adoption of the following resolution:

Whereas the University of Maryland has for more than 100 years performed an effective service in the promotion of medical science and for about three-quarters of a century in the promotion of Agriculture and Engineering, the direct benefits of which are reflected in the large proportion of its graduates engaged in the legal, medical, dental, pharmaceutical and engineering professions and in the promotion of agriculture throughout the State; and

Whereas the facilities of the school buildings at College Park and Baltimore are inadequate to care properly for the students now attending the Institution, or to provide properly for the administrative functions assigned to it; and

Whereas these needs and possible measures for their relief have been considered and are not such as to indicate a purpose to, or provide for, the expansion of the Institution beyond the needs of a University designed to meet the actual requirements of this State in the fields already assigned to it;

"Resolved, That it is important that the needs of the Institution for adequate facilities at College Park and Baltimore, including hospitalization, to care for properly, and carry on the work now conducted, be given the earnest consideration of the people of the State, and members of the Legislature, with a view of making such provision as will enable the University's established work to continue and develop as much as the situation demands and the State's resources will permit; and

Resolved, That a committee be named to submit this resolution to the Governor of the State, and to the members of the Legislature, and to make proper announcement thereof."

In order to acquaint the people of the State with the problems a booklet has been prepared setting forth the immediate needs of the

University of Maryland and has been sent to the Alumni in this State. Upon request a copy will be mailed to interested Alumni outside the State. Headquarters office has been established at the Medical School, Lombard and Greene Sts., to which all communications should be addressed. The Bulletin wishes to urge upon you and every Alumnus the importance of the present movement and hopes that each will keep in close touch with the work that is being done.

X-Ray Fund of the University of Maryland

The president and Board of Trustees of the University, complying with the request of the alumni, in June, 1922, appointed two members of the Alumni Association to the University of Maryland Hospital Council.

The report of this committee made at the annual meeting of the Alumni Association in June, 1923, embodied a statement of improvements in the X-Ray department of the Hospital, costing over eleven thousand dollars for which it was necessary to discount a note for ten thousand dollars. The Alumni Association endorsed the expenditure, and welcomed this opportunity of showing its loyalty by contributing substantially toward the payment of the note. The following resolution was unanimously adopted:

Resolved: "That each Alumnus contribute five dollars toward the liquidation of the debt incurred by the installation of a modern X-Ray apparatus in the University Hospital."

The Bulletin heartily endorses the statement that while it is the duty of the State to support its institutions, the active interest of the alumni is of prime importance. The amount requested is small enough to be within the financial ability of all and yet sufficiently large to signify the loyalty of the contributors.

Please make checks payable to Dr. Henry F. Hill, Treasurer, X-Ray Fund, and forward to 1208 Madison Ave., Baltimore, Maryland.

UNIVERSITY OF MARYLAND

BULLETIN

OF THE SCHOOL OF MEDICINE

VOL. VIII

APRIL, 1924

No. 4

UNIVERSITY OF MARYLAND

Division of Medical Extension

REVIEW COURSES FOR PHYSICIANS

June 2, 1924—June 28, 1924.

The Division of Medical Extension of the University of Maryland offers this year a series of short courses to the physicians of the State. These courses are not planned, and will not serve, to enable the practitioner to become a specialist. But it is hoped that they will meet the needs of those who wish to review the fundamental data in some field, and to inform themselves concerning recent advances in methods of diagnosis and treatment.

The duration of the courses is brief: four weeks. Each course, however, has daily meetings of from two to three hours, and there should be sufficient time for discussion and explanation during the demonstrations, and for practice in the various diagnostic procedures.

The morning courses will run from nine to eleven-thirty, and the afternoon courses from one o'clock to three-thirty or later. It will, therefore, not be possible to take more than two courses; and those who so desire may register for only one. There will, in addition, be daily clinics from eleven-thirty to twelve-thirty, in medicine, surgery, and the various specialties, which are not a part of the courses, but are open to all the physicians registered. The number of registrants for each course will be limited in order to render instruction more effective.

Information: Questions concerning the courses may be addressed to the—

*Dean of the Medical School,
University of Maryland,
Baltimore.*

Requirements for Admission: The applicant must be a registered physician in good standing. Preference will be given to physicians registered in Maryland.

Enrollment: Applications for enrollment should state the courses selected. It is suggested that such applications be made promptly as the courses will be filled up in the order that applications are received. Address—

*Dean of the Medical School,
University of Maryland,
Baltimore.*

Fees and Tuition: A matriculation fee of \$25.00 will be charged to all registrants. No additional fee for tuition will be required of physicians registered in Maryland. For those coming from other states a charge of \$50.00 for each course taken will be made.

Registration and Matriculation: Monday, June 2, 1924, 8:30 A. M. N. E. corner Lombard and Greene Streets, Baltimore.

DEPARTMENT OF MEDICINE

DISEASES OF THE CIRCULATORY AND
RESPIRATORY SYSTEMS

Daily 9 A. M.—11:30 A. M.

(Limited to Six Physicians)

DR. M. C. PINCOFFS

DR. N. B. COLE

DR. C. C. HABLSTON

I—Circulatory Diseases.

Three lectures a week. Three periods a week of one and a half hours each devoted to the examination of cardiac patients in the wards and dispensaries.

The subjects will be taken up under the following headings:

1. Factors in circulatory diseases: myocardial disease: valvular diseases: arrhythmia: blood-pressure abnormalities.
2. Symptoms: physical signs: instrumental methods.
3. Clinical types of circulatory failure: congestive: vasomotor: anginal.
4. Clinical types of cardiovascular disease: rheumatic: arteriosclerotic: syphilitic: etc.
5. Therapeutic principles.

II—Respiratory Diseases.

Three lectures a week. Three periods a week of one and a half hours each devoted to the examination of patients in the wards and dispensaries.

The subject will be taken up under the following headings:

1. Symptoms of respiratory diseases.
2. The technique of physical diagnosis and the interpretation of physical signs.
3. The interpretation of roentgenograms.
4. Clinical types of respiratory diseases.
 - a. Tuberculosis of the lungs and pleura.
 - b. Acute non-tuberculosis diseases: pneumonia: pleurisy: empyema: abscess: infarct: etc.
 - c. Chronic non-tuberculosis diseases: bronchitis: bronchiectasis: asthma: emphysema: etc.
5. Therapeutic principles.

DEPARTMENT OF MEDICINE

CLINICAL PATHOLOGY

Daily 9 A. M.—11.30 A. M.

(Limited to Eight Physicians)

DR. S. L. JOHNSON
DR. L. A. M. KRAUSEDR. H. J. MALDEIS
DR. LEON FREEDOM

The technique of the simpler laboratory tests will be taught. The more complicated procedures in common use will be demonstrated. The interpretation of laboratory tests and their value in diagnosis and treatment will be discussed. The course will be divided as follows:

1. Blood (Nine days)

Blood counting, making and staining of blood smears, differential counts. Coagulation time. Methods of making blood cultures: drawing blood for Wassermann. Wassermann tests. Widal. Parasitology of blood. Blood transfusion methods. The diseases of the blood-forming organs.

2. Urine (Nine days)

Review of routine urinary analysis. The simpler functional tests of kidney activity: dilution and concentration tests: phthalein excretion: Blood non-protein nitrogen fractions: Laboratory procedures essential for the study of diabetes: quantitative sugar: blood sugar: ammonia: CO_2 in alveolar air and serum.

3. Sputum and Nasal Secretions (Two days)

Gross examination. Bacteriology: study of stained smears: study of cultures: B. tuberculosis: B. diphtheria: Pneumococci.

4. Gastric and Duodenal Contents (Two days)

Study of the vomitus: types, colour, etc. Gastric analysis after appropriate test meals, including chemical and microscopic studies. Use of the duodenal tube.

5. Feces (Two days)

Gross physical properties. Chemical methods for blood, bilirubin, urobilin, etc. Routine studies with the microscope. Parasitology.

6. Puncture Fluids

Demonstration of technic of obtaining various body fluids. Methods of examination.

DEPARTMENT OF MEDICINE

DIETETIC AND INSULIN TREATMENT OF DIABETES

DR. W. H. SMITH

DR. HARRY STEIN

Three periods a week will be devoted to the diagnosis and treatment of diabetes mellitus.

The course is planned as follows:

General considerations

Blood sugar in health and in diabetes

Symptomatology

Diagnosis

Necessary laboratory methods in diagnosis and treatment

Complications

Prognosis

Treatment: dietetic basis of all treatment

Insulin Treatment

Treatment of coma and other complications

DEPARTMENT OF MEDICINE

PEDIATRIC CLINIC

DR. CHARLES L. SUMMERS, *Professor of Pediatrics*
 DR. EDGAR FRIEDENWALD, *Clinical Professor of Pediatrics*
 DR. C. LORING JOSLIN, *Assistant Professor of Pediatrics*
 DR. W. H. INGRAM, *Associate in Pediatrics*
 DR. H. W. WARNER, *Associate in Pediatrics*
 DR. W. J. TODD, *Instructor in Pediatrics*
 DR. J. H. TRABAND, *Instructor in Pediatrics*
 DR. W. G. GEYER, *Instructor in Pediatrics*

Assistants in Pediatrics

DR. BERNARD J. FERRY	DR. H. WHITNEY WHEATON
DR. CHARLES GOLDSBOROUGH	DR. ROBERT S. KIRK
DR. GEORGE E. WELLS	DR. H. J. DORF
DR. E. C. REITZEL	DR. D. H. LAWLER
DR. F. STRATNER OREM	DR. H. R. LICKLE
DR. C. E. MACKE	DR. W. L. BRENT
DR. G. A. KNIPP	

COURSE IN INFANT FEEDING

Daily Afternoons

(Limited to Eight Physicians)

This course is intended for the general practitioner and those especially interested in Pediatrics who desire in a short space of time to familiarize themselves with the newer advances in infant feeding. The physicians will work daily, under instruction, in the Babies' and Children's Clinic of the University Hospital, which, with a yearly attendance of over 15,000 patients, affords an unusual opportunity for the observation and treatment of a wide variety of cases. Daily Ward Talks in the University Hospital will be given, thus enabling physicians to observe the care and treatment in detail of nutritional conditions more severe in character. There will be lectures and quizzes three times weekly.

The course will cover the following subjects:

1. The underlying principles of modern infant feeding.
2. Feeding problems in nutritional conditions: marasmus, rickets, pyloric stenosis, the diarrhoeas, etc.
3. Technique of infant feeding: care of the breasts: bottle feeding: preparation of food mixtures: gavage: subcutaneous salt and glucose solution: intraperitoneal salt solution: proctoclysis.

DEPARTMENT OF MEDICINE

GASTRO ENTEROLOGICAL CLINIC

Diagnosis of Diseases of the Gastro-intestinal Tract

Daily Afternoons

(Limited to Eight Physicians)

DR. T. F. LEITZ
DR. J. H. ULLRICH
DR. T. H. MORRISON
DR. MAURICE FELDMAN
DR. MILFORD LEVY

DR. JOSEPH SINDLER
DR. Z. MORGAN
DR. L. J. ROSENTHAL
DR. P. F. WIEST
DR. WAITMAN ZINN

The course will be conducted by means of:

1. Lectures and clinics on special topics.
2. Daily study of patients in the dispensaries and on the hospital wards.
3. Laboratory work.

Instructions will be offered in:

1. Methods of history recording in gastro-intestinal diseases.
2. Physical examination of the abdomen.
3. Passage of the stomach tube: test meals: gastric lavage: examination of the gastric contents.
4. Passage of the duodenal tube: drainage of the gall bladder and its significance: duodenal feeding.
5. Examination of the feces.
6. Fluoroscopic and roentgenographical examination of the gastro-intestinal tract. Interpretation.
7. Demonstrations of cesophagoscopy and proctoscopy.

DEPARTMENT OF SURGERY

DR. ARTHUR M. SHIPLEY

DR. HENRY J. WALTON

DR. PAGE EDMUNDS

DR. JOS. W. HOLLAND

DR. FRANK S. LYNN

DR. C. REID EDWARDS

SURGICAL DIAGNOSIS

Daily 9 A. M.—11:30 A. M.

(Limited to Eight Physicians)

This course will be devoted almost entirely to the diagnosis of surgical conditions. Considerable attention, however, will be paid to the treatment of fractures. Minor surgical procedures will be demonstrated, such as: aspirations of the chest, infusions, treatment of minor accident condition, etc.

From nine to ten-thirty each morning, there will be ward rounds and operations. From ten-thirty to eleven-thirty, the routine treatment of minor surgical conditions in the surgical dispensary. There will be two clinics each week, on Tuesdays and Thursdays, at eleven-thirty.

Instruction will be given also in the use of the X-ray for the diagnosis of surgical conditions.

DEPARTMENT OF SURGERY

COURSE IN MALE AND FEMALE UROLOGY
(Including Syphilis)

Daily Afternoons

(Limited to Six Physicians)

DR. W. H. TOULSON

DR. J. M. HUNDLEY, JR.

DR. H. M. ROBINSON

This course will be given in the dispensaries and on the hospital wards. It will include practical work by the physicians under instruction, short lectures, demonstrations, and operative clinics. Instruction will be given in the technique of urethral injections, instillations, irrigations, catheterization, the use of sounds, filiforms and dilators. Darkfield examination for the treponema pallida, and the technique of intravenous therapy in syphilis will also be taught.

There will be demonstrations of urethroscopy, cystoscopy, catheterization of the ureters, lavage of the kidney pelvis, the use of wax tips and bulbs for the recognition of ureteral strictures and stones. The utilization of the above methods in the diagnosis and treatment of diseases of genito-urinary tract will be systematically presented.

DEPARTMENT OF SURGERY

* DISEASES OF THE NOSE AND THROAT*

DR. EDWARD A. LOOPER *and Associates*

Daily Afternoons

(Limited to Eight Physicians)

In lectures, clinics and dispensary classes there will be offered a brief review of the anatomy, pathology and bacteriology of the nose and throat and a systematic presentation of the fundamental clinical features of the common diseases of the paranasal sinuses, the pharynx, mouth and trachea. The use of the laryngoscope will be taught. Bronchoscopy and laryngoscopy will be demonstrated. The interpretation of X-ray plates will be discussed. The relationship of nose and throat infections to systemic disease will be presented in some detail, and the indications for the various nose and throat operations discussed.

* By special arrangement a portion of this course may be combined with a portion of the course in Eye and Ear to furnish a brief review of both subjects.

DEPARTMENT OF OPHTHALMOLOGY AND OTOTOLOGY

DISEASES OF THE EYE AND EAR*

DR. HARRY FRIEDENWALD
DR. RANDOLPH KAHN
DR. HARVEY FLECK

DR. C. A. CLAPP
DR. J. W. DOWNEY, JR.
DR. JOSEPH I. KEMLER

Daily Afternoons

(Limited to Six Physicians)

This course will be given in the dispensary and on the wards of the University Hospital and in the Baltimore Eye, Ear and Throat Hospital. By the method of case teaching instruction will be given in the recognition and treatment of the commoner diseases of the eye and ear. The use of the ophthalmoscope and otoscope will be taught and opportunities afforded for practice in their use. The relationship of diseases of the eye and ear to systemic diseases will be illustrated so that the diagnostic value of eye and ear examinations may be appreciated.

* By special arrangement a portion of this course may be combined with a portion of the course in Nose and Throat to furnish a brief review of both subjects.

COMBINED COURSE IN OBSTETRICS AND GYNECOLOGY

(Limited to Eight Physicians)

DEPARTMENT OF OBSTETRICS

DR. J. M. ROWLAND

DR. L. H. DOUGLAS

DR. D. P. BOWE

DR. J. G. MURRAY, JR.

DR. MAURICE LAZENBY

DR. J. G. M. REESE

DR. EMIL NOVAK

THE PRACTICE OF OBSTETRICS

Monday, Wednesday, Friday—9 A. M.—11:30 A. M.

The course will be conducted almost entirely on the wards and in the dispensaries of the hospitals. Brief lectures will also be given. When illustrative cases are not available manikin demonstrations will be substituted.

The following topics will be systematically presented:

1. Normal and deformed pelves and foetal heads.
2. Abdominal palpation.
3. Diagnosis of pregnancy.
4. Pre-natal care.
5. Complications of pregnancy:
 1. Abortions
 2. Toxemias
 3. Hemorrhages, etc.
6. Mechanism of labor.
7. Conduct of normal labor and puerperium.
8. Care of new-born child.
9. Puerperal infection.
10. Operative obstetrics:
 1. Forceps
 2. Version and breech extraction.
 3. Craniotomy
 4. Induction of labor.

COMBINED COURSE IN OBSTETRICS AND GYNECOLOGY

DEPARTMENT OF GYNECOLOGY

DR. W. S. GARDNER

DR. J. M. HUNDLEY

DR. H. BRENT

GYNECOLOGICAL DIAGNOSIS

Tuesday, Wednesday, Saturday—9 A. M.—11:30 A. M.

Lectures—Pathology—Ward Walks—Operative Clinics

The following subjects will be reviewed, and illustrated, in as far as possible, by ward and dispensary cases, and by gross and microscopic pathology:

1. Case history recording.
2. Uterine bleeding.
3. Injuries due to labor.
4. Displacements of the uterus.
5. Extrauterine pregnancy.
6. Cancer of the uterus.
7. Uterine fibroids.
8. Infections of the pelvic organs.
9. Ovarian growths.
10. Gross and microscopic pathology of the pelvic organs.

AN ANALYTICAL STUDY OF EXTRACRANIAL ANEURISM OF THE INTERNAL CAROTID ARTERY.

SUPPLEMENTARY NOTE.

BY NATHAN WINSLOW

From the Surgical Department of the University of Maryland.

On page 122, vol. VIII, 1924, of this Bulletin, listed as case 8, is an account of an arterio-venous aneurism of the internal carotid artery and internal jugular vein which was observed by Lannois and Patel and published in *La Caducee*, 1915, XV, 127, as an operative cure. More recently Patel has made another report on this case (*Lyon Chir.*, 1923, XX, 341) in an article entitled, *Anevrysme aterioso-veineux jugulo-carotidien de la base du crane opere en*, 1915, and read before the December 7, 1922, session of the Soc. de Chir. de Lyon with presentation of patient. The course is so extraordinary, so unexpected, so unusual, as to command further notice in these columns. The patient, a male, aged 30, was wounded August 26, 1914, by a piece of shell, making him at the time of injury 22 years of age. The fragment entered the neck behind the right mastoid process and lodged in front of the atlas a little to the right of the mid-line. As a result of thrill, auditory disturbances, bruit, right lingual and right laryngeal paralysis an arterio-venous aneurism was diagnosed and the following operation undertaken on April 22, 1915, or eight months after receipt of wound, for its relief, viz: (1) Obliteration of the right lateral sinus by a transmastoid tamponading; (2) Ligation of the right common carotid artery just below its bifurcation; (3) Ligation of the right internal jugular vein; (4) Extraction of the piece of shell. The immediate results of the operation were excellent. The physical and subjective phenomena disappeared and the patient was returned to active service. In 1917, vertigo and general malaise developed. On reexamination 7½ years after the operation, the man showed a diffuse tumefaction of the right half of the face which resembled a large angioma; marked dilation of the veins at the angle of the jaw and forehead and large pulsating venous lakes in the submaxillary region with a blow of systolic intensification. The patient complained of a heaviness in the head and a transitory congestion. The blood pressure 25/150 indicated a leakage in the arterial system. Despite the applica-

First instalment, Bulletin School of Medicine, University of Maryland, 1922, vii, 84

Second instalment, Bulletin School of Medicine, University of Maryland, 1923, vii, 125

Third instalment, Bulletin, School of Medicine, University of Maryland, 1923, vii, 171

Fourth instalment, Bulletin School of Medicine, University of Maryland, 1923, viii, 88

Fifth instalment, Bulletin School of Medicine, University of Maryland, 1924, viii, 119

tion of three ligatures, two venous and one arterial, the external carotid had permitted the reestablishment of the intracranial circulation and at the same time pumped blood into all of the branches of the internal jugular between the ligatures. Patel contented himself by remarking that ligation of the external carotid artery and the peripheral venous branches should lessen the vascular phenomena, but would not be without danger to the cerebral circulation. Leriche advised operation in spite of the technical difficulties on account of the rapidly developing cardiopathy in this type of case.

Berard in discussing the above observation, reported a case of arterio-venous aneurism he saw in 1916, at Paris, involving the internal jugular vein and the external and internal carotid arteries near their origin which was first⁴ treated by ligation of the common carotid artery and the internal jugular vein. The operation was done by an English surgeon and afforded some months of amelioration, when suddenly following an effort, the signs of arterio-venous aneurism recurred. The condition was relieved by extirpating the sac and by ligation of all of the contributory vessels.

We are indeed fortunate to have the favor of this report. The special lesson to be derived from it, is the necessity for tying both the artery and the vein above and below the fistulous communication, if a permanent cure is to be secured. If this procedure be impractical then the common carotid together with the external carotid between its origin and its first branch should be ligated so as to prevent the possibility of a reverse flow from the external through the free segment of the common into the internal carotid. The same object may be secured by throwing a thread around the proximal end of the internal carotid artery. In any event with a free communication from the external into the internal carotid artery a *reestablishment of the aneurism must be seriously considered*.

I am also thankful to be able to clear up the nature of the case reported by Dr. Rudolph Matas in the New Orleans Medical and Surgical Journal, 1894, XXII, 245, and cited as a possible example of extracranial aneurism of the internal carotid artery. In a personal communication to me under date of March 11, 1924, Dr. Matas says, "I notice you refer especially and at some length to my early case of suspected aneurism of the internal carotid (pp. 93-94, Bulletin, October, 1922, and pp. 89-97 of the Bulletin, October, 1923). In this case the death of the patient about a year after my report was published cleared all doubt. The patient returned with a decided increase in the tumor with secondary growths in the corresponding cervical glands. After preliminary tracheotomy, I made an attempt to extirpate the mass by an extensive retropharyngeal dissection. I succeeded in removing only a part of the mass which projected into the pharynx. The patient survived the operation only a few weeks. The tumor

proved to be a fibro-sarcoma of extremely slow growth which had probably begun as a fibroma of the tonsil or retropharynx. There is no question that in this case there was no aneurism, through the clinical history and symptomatology simulated an aneurism so closely that there was always a doubt as to the true nature of the tumor until the final outcome proved unequivocally that it was not. It is possible that the ligation of the common carotid may have retarded the development of the growth. However, you will agree that in the case that I reported, my senior consultants (Logan and Souchon) had good reason for their diagnosis."

This case must accordingly be dropped from the controversial list and assigned to its rightful place, namely, malignancy of the tonsil or retropharynx. It affords me much satisfaction to make this correction especially as it bears out the contention of Dr. Matas in his original work that the malady under discussion was not an aneurism but a neoplastic growth; also to express to Dr. Matas our readers' appreciation of the pioneer work he has done in arterial surgery, thereby placing the profession under an everlasting debt to his genius.

A PLAN FOR THE TREATMENT OF SYPHILIS.

HARRY M. ROBINSON

It would be presumptuous for any physician to claim for his plan of treatment of syphilis pre-eminence over all other plans; for while all physicians attempt to treat the syphilitic, it is a fact that at the present time there is no one standardized method that accomplishes the desired result in all cases. It is regrettable that Ehrlich's dream of a 'therapia sterilizans magna' has failed to materialize, and that one or several injections of arsphenamine have not accomplished a cure. On the other hand it would be wrong to say that arsphenamine or neoarsphenamine had failed altogether or even fallen short of the expectations of syphilologists, or that they were not the therapeutic agents of choice where the eradication of syphilis is desired.

Admitting that no one plan of treatment will prove successful in all cases of syphilis, it is nevertheless essential to have a plan of treatment. The doctrine of individualizing treatment for each patient, so stressed in recent years, is applicable largely to late syphilis. In early syphilis, on the other hand, the patients are usually young adults, in robust health, and, contraindications to the intensive treatment are lacking. At this stage of the disease, one must treat his patients according to a given routine, else the interpretation of end results is impossible. For this reason I wish to describe the routine plan of treatment in use in the University Hospital Clinic over a period of years.

Before we proceed, it has seemed desirable to try to clear away some hazy impressions that are still prevalent, regarding the extent of the invasion, during the first few weeks following inoculation with the *treponema pallidum*. Some physicians have felt that the excision of the chancre might make it possible to abort the disease. Others insist on the possibility of aborting syphilis with one or two injections of arsphenamine, emphasizing at the same time the urgent need of attacking the condition before the secondary stage. It is now time to discard these ideas. It has been shown that even before the appearance of the chancre, treponemes are present in the lymph nodes, spleen, and the blood stream, and that even the excision of a wide zone of tissue outside the point of inoculation, 48 hours after this procedure, failed to prevent the development of generalized syphilitic lesions. It is also definitely proved that central nervous system syphilis may occur simultaneously with the chancre as evidenced either by the demonstration of organisms in the cerebro-spinal fluid by means of animal inoculation or by the cytobiology of the cerebro-spinal fluid. With this knowledge to guide us, we must surely see that our hope of a rapid cure is not a goal easily obtainable. In practically all cases, by the time they reach our hands, the organisms are present in all regions of the body, and it is absolutely false to consider a chancre as a localized walled-off reaction to treponemes.

We wish now to consider the prognosis of syphilis. To one group of physicians, chiefly pathologists, a cure is an unobtainable mirage. At the other extreme, the patient is told that one or two or six intravenous injections of arsphenamine will surely cure him. Between these two groups of enthusiasts, there is a wide gap. Our own feeling lies between these two extremes. We feel that a cure may certainly be obtained in many cases, though great harm may result from insufficient treatment, and the patient may be worse off than from no treatment at all. To aim at a single negative Wassermann reaction as indicative of a cure, is merely to show that we do not know what this reaction means. The literature is filled with reports of cases in which blood reactions, negative from the beginning of treatment, or made so shortly after, have within a few months or years relapsed to positive. And yet it is necessary that persistently negative reactions in the blood and cerebro-spinal fluid be demonstrated in every case and that repeated physical examinations show negative results before we can be said to have accomplished the cure of the patient. To prescribe any plan of treatment with only a negative blood as a goal, and to call that a cure, is putting a very heavy responsibility on the physician. Until more thorough procedures of examination are used by the proponents of the various methods reported at one time or another, we cannot hope to see even a semblance of a standardized form of anti-syphilitic treatment in the near future.

For when one realizes that a conservative estimate of central nervous system involvement in syphilis is from 25% to 35% of all cases, it is surely evident that no patient can be called cured, who has not shown a blood complement-fixation reaction persistently negative to water-bath and to ice box tests; who has not had a thorough examination of the cerebro-spinal fluid; who has not been subjected to fluoroscopic examination of the cardio-vascular stripe; and who has not had an exhaustive physical examination. Most syphilologists still believe that early syphilis can be cured and hail a reinfection as evidence of a cure of the pre-existing syphilis. But to attain the goal of a cure, it is necessary, first, to attack the disease at the earliest possible moment of infection, and, secondly, to attack the disease with all due regard for the patient's tolerance and welfare, persistently, intensively, and with all the available weapons at hand.

The first element in the treatment of the syphilitic patient, should be the realization that while we are trying to eradicate the syphilis, we must not injure the patient. We must be sure that the patient can tolerate the treatment, and that while we are curing the disease, we do not kill the patient. Impairment of the cardio-vascular, the renal, and the hepatic systems, call for extra caution in the treatment. While it is true that there are few contraindications to anti-syphilitic therapy, it is also true that care must at all times be exercised if we are to accomplish the greatest good. The greatest factor is persistence in treatment. To stop treatment as soon as a negative blood Wassermann is attained, is to invite a recurrence. One of numerous reports shows that, of patients who had lapsed, having taken from one to twelve injections of arsphenamine the incidence of central nervous system involvement was three times as high as that of patients treated without lapses. That this is true of recurrences in other regions of the body, can be attested by the material of all large clinics with a follow-up system, as well as in our own clinic, where during the past ten years we have seen numerous cases of clinical and serological relapses following one to ten intravenous injections of the arsphenamines and some mercury. Our experience, in common with that of numerous authorities, has taught us that it is much better to overtreat than to undertreat. As a third consideration, we wish to mention intensive therapy. One should tread carefully here, as it is too true that in our overzealousness, we may both harm and discourage our patient. Those who talk of intensive treatment, meaning daily injections of arsphenamine, should be able to show more desirable results to make up for the ill effects that opponents of the methods have found. Besides, it has been shown that these hyperintensive methods are not sufficiently more effective than is the lesser intensive method, to be outlined presently. That we do not combine our treatment

giving mercury and arsphenamine as a routine, simultaneously, is not because of the possibility of predisposing to arsphenamine dermatitis, but because there is always the danger of producing a strain of organisms tolerant to the drugs. If we are using our drugs separately, it is also easier, when the patient reacts untowardly, to switch to the other drugs at our service.

Our method has been to use alternate courses of arsphenamine and mercury and to repeat this sequence for about one year after blood and spinal fluid have become and have remained negative. The duration of treatment is merely a matter of experience. We prefer starting with arsphenamine as we have in this drug the most powerful treponemocide, wherein 24 hours after an injection spirochaetes are not demonstrable, superficially. In most patients we have found it the wisest procedure to start injections with small doses, increasing if we found it tolerated well. It has been our unfortunate experience, several times, to have patients react quite severely to 0.3 and 0.4 gm. with nitritoid reactions, and in one or two cases to have the patient refuse further treatment. If we find that the patient can take the treatments without disturbing reactions, we proceed to increase the dosage until 0.4, 0.5 or 0.6 gm. is reached and from six to ten doses are given weekly or bi-weekly, as a rule eight, in a dilution of from 10 to 20 cc to each decigram, after which a course of mercury is instituted, to last about four to eight weeks. These courses of arsphenamine and mercury are grouped as one series, and repeated for about one year after the serology has been returned negative. It is to be understood though, that even after this prolonged treatment the patient should be urged to return about every three months for a serological examination covering a period of two or three years. We have preferred arsphenamine as a routine, because although harder to prepare, it is more effective in reducing a Wassermann to negative, and, because it has been shown that recurrences are less likely, than under the usage of neo-arsphenamine.

Regarding the administration of mercury we have felt that the drugs used by intravenous and intramuscular injections would be preferable because of their more certain dosage, if well tolerated. But one must be conservative, watching ever for the patient's welfare and where pain or discomfort are noticeable, recourse to the older method of inunctions is to be preferred.

COLON BACILLUS OSTEOMYELITIS.

BY NATHAN WINSLOW

From The Surgical Department, University of Maryland.

On page 695, *Annals of Surgery*, vol. LXXVI, 1922, I described a case of colon bacillus osteomyelitis and cited six other cases published in the literature in which this organism was recovered from inflammatory bone disease, either alone or in mixed culture. Inasmuch as standard treatises on surgery have little, or nothing at all, to say on the subject, a re-presentation of the case may be appreciated by our readers especially as I can now furnish its completed record and in addition add another observation to the tabulation which was overlooked at the time of my earlier article, thus bringing the surgical history of colon bacillus osteitis up to date.

The patient, a white male, aged 52, farmer, was admitted to the University Hospital, March 15, 1922, in the service of Dr. Compton Riely, for a swelling at the lower end of the right thigh which had rendered him a bedridden cripple. He had not injured the limb and could assign no reason for the disorder. Twenty years previously, he had had typhoid fever, and in 1918, a mild attack of influenza, from both of which he had recovered without complications. On October 15, 1921, without warning, he was seized with severe pain in the right thigh just above the knee-joint, and on examining the seat of discomfort discovered a small lump. Shortly after the beginning of the attack the skin changed to a purplish hue and during the latter part of December broke, discharging a large amount of pus. He was brought to the University Hospital, because of failure to exhibit any signs of improvement. On admission, examination revealed an enormously swollen right thigh at its lower third, with fluctuation posteriorly. This area was anesthetized with a one-half per cent. procaine solution on March 18th, and a free incision made by Dr. Riely, which gave exit to a large amount of thick, yellowish pus with the characteristic stench of a colon infection and uncovered a bare and diseased right femur. The abscess cavity was irrigated daily with a 2½ per cent. formalin solution followed by a copious normal salt flushing. By April 18th, the wound was pus free and the patient's health greatly improved. On August 10th, the wound had entirely closed and the man was discharged December 2, 1922, as cured.

He is again engaged at his occupation as farmer, but has a stiff knee. When the disease was at its height, the temperature ranged as high as 102 degrees F. A white cell count made shortly after his admission was 12,000. A differential blood picture gave polymorphonuclears, 62 per cent.; small mononuclears, 35 per cent.; large mononuclears, 3 per cent. From the pus was grown in pure culture the colon bacillus. In so far as the attack of typhoid fever preceded the bone lesion by twenty years, and there has never been the least intimation of its presence from convalescence till the date of the initiation of the present illness, the probability is the bone disease arose entirely independent of the earlier infection. Force is lent this conclusion by the patient's serum failing to clump the typhoid, or either paratyphoid group, but it did agglutinate the organisms grown from the pus collected from the thigh, in the dilution of 1 to 100, quite promptly. Though no animal inoculations were made, the organism had all of the cultural and morphological characteristics of the *B. coli*.

Other cases of suppurative osteomyelitis from which the colon bacillus has been recovered, have been reported, as follows:

1. Berg (Nord. Med. Archiv., 1895, n. s., v., 44, translated by C. R. Ahroon, Univ. of Maryland). The patient, a male, aged 27, had noticed for about a month in the third right costal cartilage near the edge of the sternum a nut-sized swelling of acute tenderness and adherent to the bone, for which no cause could be assigned. As it was increasing in size, the man sought medical advice. On admission, September 3, 1895, there was noticed a hard, oval, elastic tumor with a soft center in the region of the right third costal cartilage. The overlying skin was normal; no lymph glands were palpable; no demonstrable changes in the inner organs; no fever. No diagnosis was made. Exploratory incision developed a small cavity beneath the pectoral muscle filled with a thin pus, and in the bottom of which lay a diseased third costal cartilage. The entire cartilage was excised and the wound closed loosely. Healing was rapid. Microscopical examination for the tubercle bacillus was negative. Guinea pigs inoculated intraperitoneally with some of the pus as well as subcutaneously, died in 14 days. Sections from these animals showed no tubercle organisms; but fluid from the peritoneum, spleen, liver and heart contained the same bacterium as that of the pus implanted in agar. At the site of the subcutaneous injections, abscesses, filled with a thick pus, formed. No tubercle bacilli were found in this exudate. Cultures made at the time of the operation in agar, showed the *B. coli communis* alone.

2. Blumer (Pacific Rec. Med. and Surg., 1898, xiii, 105). The patient, a woman, aged 45, in April, 1897, passed through a "typhoid attack" of moderate severity. The disease ran a course of 28 days. In the fourth week of the illness, the patient began to complain of pain at the point of junction of the fourth rib with the sternum where a small deep seated nodule soon appeared. There was no redness of the overlying skin; no edema. A collection of pus was suspected, so the area was aspirated, but without success. The patient returned home and was not seen again until October 12, 1897, when she returned for a lump in the left breast which had been of gradual development. The mass was removed whole, but the wound never healed, a sinus persisting which discharged a thin sero-pus. At a second operation, in January, 1898, the rib was found necrosed at its junction with its cartilage. The diseased bone was removed and the wound packed. Healing was rapid and the patient permanently cured. The *B. coli communis* was the only organism isolated from the pus.

3. Martina (Arch. f. klin. Chir., 1907, lxxxiii, 906). The patient, a man, aged 47, was attacked, September 15, 1905, with a moderately severe fever of four weeks' duration which was diagnosed typhoid. Six weeks after the onset of the malady, the patient noticed in the location of the right third costal cartilage a small lump which by November 23, 1905, had attained the size of an orange. It was not accompanied by fever and caused pain only when the body was jarred. He was admitted to the hospital, November 23, 1905, for a deep seated swelling which fluctuated. It was aspirated with the recovery of a thin purulent liquid which was immediately inoculated into various culture media. On November 24, 1905, under local anesthesia, Payr made a free incision into the abscess and emptied it of its contents. Although the cartilage was well exposed, no damage to its perichondrium was noticed. Under the assumption the abscess was of the soft parts exclusively, a few sutures were paced at the angles of the wound and the cavity packed with gauze. Three weeks later the wound had contracted down to a small channel which occasionally secreted a few drops of pus. Notwithstanding the employment of various measures, the sinus remained refractory and declined to heal. Therefore three months after the first operation, the man was induced to submit to a second intervention. On this occasion, February 20, 1906, under general anesthesia, the fistula was slit down to the cartilage which was exposed in its entire length. As the cartilage was extensively necrosed, it was completely removed. The wound was solidly united in 4 weeks. From the pus obtained at aspiration, the colon bacillus was isolated in pure culture.

4. Satta (La Chirurgia degli Organi di Movimento, 1922, vi, 105). This patient, a man, aged 30, was wounded in the left leg, September 15, 1916, by a piece of shell, producing a comminuted fracture of the tibia which became rapidly infected. He was under treatment until February 15, 1917, when he was discharged as cured. According to the patient the discharge had been intolerably offensive. On April 25, 1917, the temperature ascended and the man was suddenly seized with intense pain at the seat of the fracture. After three days of torture he was returned to the hospital. On May 12th, the edges of the scar located on the upper antero-internal aspect of the left leg were red and brawny. This area was exquisitely tender on pressure. The radiograph showed osteomyelitis without a visible foreign body. Hence on May 14, 1917, an incision was made down to the tibia. The periosteum when slit gave exit to a collection of thick, yellowish, fetid pus mixed with gas. At a spot in the cortex was a greenish scab which marked a point of softening and purulent infiltration. Whilst reaming away this debris the curette slipped into a medullary pocket full of the same kind of pus. Though the bone was widely opened and drained, the temperature continued high and the boggiess extended into the neighboring tissues, requiring on May 17th, a new incision which released a subaponeurotic and intramuscular collection of pus. No improvement following, a low thigh guillotine amputation was done, May 28, 1917, but the temperature continuing elevated and the wound secreting an abundance of evil-smelling material, an autogenous vaccine was made and injected daily in progressively increasing dosage. However, not until June 9, 1917, did the patient begin to show any signs of improvement. Shortly thereafter the femur extruded a sequestrum, cicatrization then proceeded sufficiently well for the man to be discharged, July 28, 1917. The bacillus isolated from the tibial abscess was certified as the colon. The serum of the patient did not agglutinate this organism. In this instance the infection was probably from without, rather than through the blood stream.

5. Charbonnel (Rev. de Chir., Paris, 1922, annee 41, lx, 345). This is the case that I failed to include in my earlier paper. The patient was a man, aged 45, who had had dysentery in 1917, of two months' duration. In the beginning of convalescence he was seized by an intense pain at the upper and inner aspect of the right tibia, followed by swelling. The leg was incised and drained. In twenty days the wound had entirely closed. The patient experienced no further trouble until October, 1921, when he was seized with pain again at the same spot. This was quite severe, especially at night and was accompanied by an associated low grade fever. The overlying skin was edematous, but not discolored. A radiograph showed an oval opacity. When seen by Charbonnel on December 19, 1921, the Wassermann was negative, as well as the typhoid and paratyphoid A and B agglutination tests. However, as seven days later, the symptoms were increasing and fluctuation was present, an operation was decided in order. So on December 31, 1921, a free incision was made down to the tibia through obviously thickened periosteum, thereby uncovering a small opening in the cortex of the bone from which droplets of pus exuded. This hole was enlarged, revealing a large osseous abscess filled with a yellowish green, malodorous sanguinolent pus. The diseased bone was thoroughly debrided and Dakinization instituted. The pus obtained at operation, grew the colon bacillus alone, but was crowded out by the staphylococcus pyogenes aureus according to later tests. The man was discharged May 13, 1922, as cured. When seen again on June 9, 1922, the cure persisted.

In the two following cases the colon bacillus was associated with the bacillus of Eberth.

6. Klemm (Arch. f. klin. Chir., 1894, xlviii, 793). The patient, a girl, aged 16, showed near the close of a severe and typical typhoid fever, a sudden increase in the severity of her symptoms with the appearance of a marked swelling at the middle of a thigh. She had been sick 8 days when she entered

*Basteran, E.; Acute Colon Bac. Mastoiditis,
Revista Medica Latino-America, Buenos Aires,
1925, X, 910, also abstr J. l. a. m. a., 1925,
LXXXV, 1011. The seph. continued after 2
ops on the mastoid + perfect drainage*

the hospital, October 24, 1893. It was not until November 8th, that the fever broke in the morning, but there was always a slight evening rise. December 7th, an abscess appeared over the right great trochanter which was promptly incised. December 18th, the girl had many chills and the temperature rose. December 21st, a puffiness was noticed at the middle of the left thigh. The affected area was very tender and the overlying skin intensely injected. On December 23, 1893, this swelling not only fluctuated, but was accompanied by a crepitation, and on percussion gave a tympanitic note. A needle was inserted and a few drops of pus recovered. From the puncture-wound, a stinking, hissing gas escaped. December 25th, the abscess broke, giving exit to a quantity of brownish-red, ill-smelling pus. The patient died, December 28, 1893, of collapse. Both the typhoid and the colon bacillus were isolated from the pus, obtained December 23rd. At autopsy, the left femur was bare of periosteum and its cortex was necrotic, but no pus was seen in the central canal.

7. Arcoleo (Il Morgagni, Giorn. Indir. al Prog. della Med., Milan, 1899, xli, 653). The patient, a woman, aged 21, was taken ill of typhoid on May 2, 1898. The disease ran its course in six weeks. During convalescence she noticed a tumefaction of the right great trochanter and ten days later a swelling at the middle of the left thigh which pointed anteriorly. The skin was red, tender to pressure and the mass fluctuated. There was a sense of crepitation on palpation and on percussion a tympanitic note was detected. The right thigh was incised, but the left was aspirated only, for the purpose of obtaining some pus for bacteriological study. With the withdrawal of the syringe, a few bubbles of gas escaped from the track made by the needle. Next morning the abscess opened spontaneously, giving exit to a large quantity of brownish-red pus. The patient died in collapse the same day. At autopsy nothing of interest was found except an osteomyelitis of the left femur.

The only other case of colon bacillus osteitis, of which I can find mention is an observation by Klemm (Beitr. z. klin. Chir., 1913, lxxxiv, 369), but other than tabulating the case as occurring on pp. 378, 402, and 408 no information is furnished. This is obviously the case reported by Klemm in Arch. f. klin. Chir., 1912, xcix, 455. I have omitted it, however, as an example of osteomyelitis of colon bacillus origin, because the main force of the inflammation was directed against the right shoulder joint, there being only a small foyer of pus in the head of the bone.

Four of these patients were men; four women. Their ages ranged from 16 to 52 years. The bones involved were: femur, thrice; costal cartilage, thrice; tibia, twice. The two cases of mixed infection died. One of the tibia cases recovered only after an amputation at the thigh. The three instances of costal chondritis all recovered after complete removal of the diseased cartilage. The man with the unmixed infection at the lower end of the femur, recovered, but with a permanently ankylosed knee.

It would appear from the cases reported that like the typhoidal osteomyelitides, this may also occasionally undergo spontaneous resolution; that it may occur in either an acute or chronic form; that it has periods of quiescence and activity; that a most thorough eradication of the diseased bone is sometimes necessary to effect a permanent cure; that vaccine therapy may prove a valuable adjuvant in stubborn cases; that the prognosis is relatively favorable as regards life; that a routine bacteriological examination of the pus recovered from bone abscesses would reveal the colon bacillus more frequently than at present suspected.

The colon bac was found in the pus.
Prompt improvement & soon a permanent
cure followed an anti-colon bacillus
vaccine therapy.

Carrara-V. Osteomyelitis from Colon Bac in an Infant.
Archiv. Italiano di chirurgia, Bologna, 1925, xii, 348

PARATYPHOID OSTEOMYELITIS

BY NATHAN WINSLOW

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The purpose of this paper is twofold: (1) to stimulate interest in this rare lesion; and (2) to collate the published cases of paratyphoid osteomyelitis. Doubtlessly the failure to request bacteriological examination of osteomyelitic detritus accounts somewhat for the limited number of observations on file. Else, how can this scarcity be explained? No matter what the reason is, the identification of the offending microorganism is of paramount importance to the patient and the surgeon alike. Upon this knowledge, to no small degree, hinges the prognostic protocol and the scheme of treatment. Too few paratyphoid bone infections have been recorded to hazard an opinion as to the relative frequency with which the original disease is followed by osseous metastasis. From my experience gained in an epidemic amongst American troops, in Mexico, during the Fall of 1916, the tendency to bone sequelae appears to be slight. Of more than 100 soldiers, ill with paratyphoid fever, for the most part of type A, not a single individual complained of any bone dyscrasia during his sojourn in the hospital; as to later developments I am ignorant. Eight cases are all I can find listed in the literature, viz:*

1. Cushing (Johns Hopkins Hospital Bull., 1900, xi, 158) relates the case of a colored man, age 27, who was admitted to Halsted's clinic, March 1, 1899. Nine months before he had a prolonged and severe fever, supposedly typhoid. The illness began in June, 1898, and with a relapse lasted 10 weeks. During convalescence the patient noticed two tender nodules over the left fifth costal cartilage, one the size of a dollar, the other somewhat smaller. The latter subsequently disappeared, but the larger continued to grow and 6 months later broke open and evacuated a large amount of pus. The sinus, once formed, manifested no tendency to heal. True, it closed on several occasions for a short period. The orifice was at the edge of the sternum. The diseased cartilage was tender along its entire course. Upon introducing a probe, bone grating was felt. The patient's serum did not clump the typhoid bacillus. March 6th, 1899, the sinus was excised together with the entire fifth costal cartilage, a piece of the corresponding rib and portions of the fourth and sixth cartilages. The wound was closed without drainage. The subsequent course was not mentioned. Cultures taken at operation from the bottom of the sinus supplied pure colonies of a bacillus corresponding to the bacillus paratyphoid A. Cushing designated it, bacillus O and placed it in a group intermediate between the typhoid and colon families. The specificity of the microbe was apparently proven by the patient's serum acting strongly to it, but not to the typhoid germ.

*Besides the cases herein collected, Vincent (Bull. de l'acad. de Med., Paris, 1922, 3.s., lxxxvii, 518) makes mention of a paratyphoid B osteopathy in the forearm treated with vaccino-therapy by Ramero and reported in La Tribuna Medica, Santiago de Chili, 1920, No. 5, May; in foot-note 7, same page, this authority announces that Eschbach and Emile-Weil have cited instances of paratyphoid B osteomyelitis. Unfortunately, having been unable to secure the original articles in which these cases were published nor reliable transcripts of them, they had to be omitted from my collective review as representatives of this rare lesion.

For fuller account see Bull. of the Univ. of Md. School of Medicine, 1925, x, 116.

For fuller account see Bull. of the Univ. of Md. School of Medicine, 1925, x, 96, case 6.

2. Fischer (Festsft. z. 60 Geburtstag von Robert Koch, 1903, p. 281) mentions that he isolated the B. paratyphoid B from the pus of an abscessed right third costal cartilage, August 1, 1903, nine weeks after the onset—May 20, 1903 of a general infection which resembled a typhoid fever. Other than the patient was a man, the clinical story is wanting.

3. Buchholz (Medizinische Klin., 1907, iii, 143) cites the history of a young man, age 18, who had never had any intestinal symptoms, but for several months had suffered with a suppurative otitis media, then developed a mastoiditis. As the operative picture was so strange, some of the debris was sent to the laboratory for further investigation, especially with the idea of eliminating tuberculosis. The paratyphoid bacillus type B was isolated in pure culture as verified by morphological, cultural and serological tests. The patient's serum did not clump the microbes grown from the pus, but did agglutinate the laboratory strain. The recovery of this bacterium was the first intimation that the man harbored a paratyphoid microbe.

4. Bushnell (Lancet, Lond., 1907, ii, 1756; also Johns Hopkins Hosp. Bull., 1908, xix, 44) records a bone abscess caused by the bacillus paratyphoid A. The patient, sex not mentioned, age 41, was admitted to the hospital under the care of Jones on May 25, 1907, for an acute suppurative periostitis of the left tibia following a mild attack of "typhoid fever" five weeks previously. On examination there was a tender, fluctuating nodule the size of a bantam's egg at the middle of the left tibial crest, which was said to have begun during convalescence. A Widal, made on the twelfth day of the disease was negative. The abscess was incised and four ounces of pus evacuated from beneath the periosteum, after which the wound healed rapidly. This pus contained a Gram negative bacillus in pure culture with all of the characteristics of the paratyphoid A. The serum reaction was on three occasions negative to the typhoid bacillus; once during the illness and twice during the course of the bone infection. It was also negative to the colon bacillus.

5. Jensen and Koch (Deut. med. Wochsft., 1910, xxxvi, 2196) report the case of a man, age 40, who at 20 years had an attack of typhoid fever which lasted 5½ months. Three weeks after the onset of the fever, a tender, red and painful node appeared in the left thigh. Under topical applications this slowly subsided. During the next twenty years the patient had pain in the left leg off and on but not sufficiently severe to cause him to cease work. In October, 1909, he injured this thigh. The accident was promptly followed by pain at the site of the former swelling and some fever. In a few days' time a distinct bulging was noticed just above the internal condyle. When admitted to the hospital, October 27th, 1909, the man had a moderate rise of temperature which was evidently from the absorption of toxins from an inflammatory swelling on the inside of the lower part of the thigh. The overlying skin was red and hot, and fluctuation was plainly evident. A skiagraph showed the femur thickened in its lower fourth. When the abscess was opened, October 30, 1909, bare bone was discovered at the bottom of the cavity. Though the femur was freely chiselled away, no abscess cavity or sequestrum was encountered, simply a sclerosis. The patient was dismissed December 30, 1909, with a discharging sinus, but was readmitted January 30, 1910, because the fistula in the meanwhile had refused to close. January 31, 1910, the track was split wide open, but no roughness was discovered in the bone. When discharged April 9, 1910, the wound was still open, but closed permanently two days later. Cultures made from the grayish-red pus, obtained at the operation—October 30, 1909—contained the Bacillus paratyphosus B alone.

6. Rissler in Reenstjerna (Deut. med. Wochsft., 1910, xxxvi, 896; also Hygiea, Stockholm, 1910, 2. f., x, 986): When 17 years old, the patient, a woman, age 41, had "Nerve Fever", followed by good health until the beginning of 1906; at which time while on a journey, she was taken sick with a low grade fever and was bedridden for two days. For fourteen days more she felt poorly. At the end of that period she returned to Sweden. Almost immediately upon

her arrival home the fever reappeared and lasted a week. During the illness there was never any disturbance referable to the intestinal canal. Shortly after the woman got out of bed, she felt tenderness and pain in the lower part of the left side of her chest. This was thought to be due to either a splenic abscess or a gastric ulcer. Towards the end of 1907, a bulging appeared over the left lower costal cartilages. By Christmas 1908, this mass had attained considerable volume and the tenderness was more marked. She entered the hospital, February 16, 1909. The Widal test was negative. On February 18, 1909, the abscess was lanced and emptied of a large quantity of yellowish, jelly-like material. At the bottom of this pool of pus was a necrosed costal cartilage. The abscess wall was excised and drainage instituted. The patient was discharged March 2, 1909, as cured. The *B. paratyphoides* B was isolated from the contents of the abscess. The question arises was the attack suffered at 17 years of age responsible for the chondritis, or the sickness of two years before. The author was inclined to regard the latter. No mention was made of the exact cartilage involved.

7. Spassokukozky (Wien. klin. Wochsft., 1912, xxv, 488) publishes an account of a chronically discharging osteomyelitis of the left tibia from which was recovered the paratyphoid type B in association with the streptococcus. The patient, a male, age 16, when admitted to the hospital, had been sick for two months. The malady was said to have begun acutely with high fever and pain in the left shin-bone, for which multiple incisions had been practised and much pus evacuated. Two months after the onset of the malady a pathological fracture occurred at the upper third of the tibia and the patient was brought to the hospital to have the leg amputated. On admission his temperature was normal; the diseased leg edematous and at its upper third on the front a discharging sinus which led down to the site of fracture. On the inside of the lower end of the leg was another fistula which was also in communication with the tibia. An X-ray examination revealed a huge sequestrum which occupied the entire diaphysis. December 19th, under ether, a subperiosteal resection was undertaken; the sequestrum extracted; the cavity curetted; iodoform gauze drainage instituted and the wound closed at its upper and lower angles. Despite the extensive operative mutilation the patient left the hospital eleven months later entirely cured. Cultures from the pus showed the presence of the *B. paratyphoid* B in association with the streptococcus pyogenes. Two weeks after the operation the serum of the patient clumped a laboratory strain of the *B. paratyphoid* B, in the dilution of 1 to 100, but did not agglutinate either the *B. typhosus* or the paratyphoid A.

8. Moreau (Bull. et mem. de la Soc. med. d. hop. d. Par., 1916, 3. s., xl, 1960) tells of a soldier, age 32, who was taken sick in June, 1916. While still in fever he developed a gangrene of the right leg, necessitating amputation, July 12, 1916 and reamputation of the stump, August 18, 1916. More than two months after the cure of the primary disease a suppurative osteoperiostitis of the right seventh costal cartilage first manifested itself by severe pain on pressure and a thickened indurated lump. There was neither change in the color of the skin nor fluctuation. October 3, 1916, the swelling was aspirated and a few drops of sero-purulent liquid withdrawn. On October 6, 1916, an incision was made into the lump and 5cm. of diseased rib and cartilage resected. During the operation a small quantity of pus escaped. When the patient was evacuated in the middle of November, the wound was well on the road to closure. Bacteriological analysis of the pus obtained October 3, 1916, by puncture, showed the presence of the *Bacillus paratyphoid* B. In this case the complicating infections were very interesting: (1) positive blood Wassermann; (2) endarteritis obliterans, with gangrene of the right leg; (3) the presence of the malarial plasmodium; (4) suppurative osteoperiostitis of the right seventh costal cartilage. The blocking of the artery was attributed to the syphilitic virus.

In addition to the beforementioned cases, Achard and Bensaude (Bull. et mem. de la Soc. med. de hop. de Par., 1896, 3. s., xiii, 825; and cited by Bensaude,

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These Paris, 1897, p. 181) report a case of suppurative arthritis of the right sterno-clavicular joint, the pus of which contained the *B. paratyphoideus* B. The patient, a girl, aged 7 months, was seen by Martinet, June 23, 1896, for a fever which he diagnosed typhoid. The temperature did not reach normal both morning and evening until July 13th. The same day the mother called attention to a red and painful swelling at the upper part of the thorax. The day following fluctuation was present and Walther opened the abscess and instituted gauze drainage. The pus came entirely from the joint, the constituent bones of which appeared intact. The patient was discharged at the end of May, 1896, as cured. Abetti (Il Policlin, Roma, 1912, xix, sez. prat., 1746) reports a pelvic abscess from the pus of which the *B. paratyphoideus* B was recovered. Involvement of the iliac bone was not demonstrable.

To these cases doubtlessly should be added three observations of paratyphoid spondylitis, viz:

McRae (The American Jour. of the Med. Sc., 1906, cxxxi, 878) on two different occasions recovered the *Bacillus paratyphosus* from the blood of the patient thus insuring the correctness of the diagnosis. The patient, a colored man, age 28, was admitted to the hospital, October 23, 1905, complaining of chills and pains throughout the body. He had had syphilis and two attacks of gonorrhoea. His present illness began on October 23, 1905. On admission his temperature was 104 and leucocytes 11,000. Two days later the leucocytes were down to 6,000. The fever, which had every appearance of a mild typhoid, had run its course by November 14th, the twenty-third day of the disease. November 28th, after two weeks of normal temperature the patient complained of much pain on sitting up and held his back rigid. He was put to bed and felt well, with the exception of pain in the spine. On December 9th, the forty-eighth day of the disease he was still complaining of severe pain in the spine, but nothing definite could be made out. The clinical picture varied from day to day; sometimes the man was free from pain and again he cried and moaned out constantly. A radiograph taken December 9th, showed a deposit of new bone on both sides between the fourth and fifth lumbar vertebrae. The intervertebral disc and lateral ligaments seemed to share alike in the process. December 12th, the fifty-first day of the disease, the temperature rose to 100, and continued elevated off and on for five weeks, occasionally reaching 101. The man refused to sit up voluntarily; cried aloud if held up and kept his back stiff. No local changes were noticed until December 23rd, when the lumbar curve was seen to be almost obliterated and marked muscle spasm was plainly evident on both sides of the spine. With the exception of a sore spot at the sacro-iliac joint, touch evoked no discomfort. The condition gradually ameliorated and by January 25, 1906, the patient could stand with some support but held his back stiff and would not bend his spine. A radiogram taken January 30th, showed in addition to the previous changes a slight bony deposit in the intervertebral space between the third and fourth lumbar vertebrae on the right side. On February 9th, a plaster jacket was applied and the patient commenced to walk about. He improved rapidly and was discharged on March 16, 1906. The Widal reaction was negative on nine trials. Blood cultures on two different occasions yielded a paratyphoid bacillus. This was agglutinated in the fourth generation by the patient's serum. Cultures from the urine and stools were negative for paratyphoid and typhoid bacilli. The patient was last seen on May 6th, 1906; he had been doing laboring work without any trouble. Except for a slight stiffness he was free from all effects of his illness.

Fried (Deut. med. Wochsft., 1912, xxxviii, 94) presented before the Nurnberg Medical Society, June 1, 15 and 29, 1911, an address on paratyphoid spondylitis and included an observation of a case. The patient had run a fever of moderate intensity in whose stools were found constantly from December 1910 to February 1911 bacilli which culturally fell in the paratyphoid family. About the middle of January 1911, the patient began to complain of lumbar pain,

which were especially marked on bending movements. The pain radiated into the buttocks and back of the thighs and was more severe on the right than on the left side. The lumbar vertebrae were tender on pressure and there was increasing atrophy of the legs. Sensory disturbances were noticed on the right side, soreness of the girth; hyperesthesia of the lower abdominal region and buttocks; ever-present cold feet. The abdomen was tender to the touch. Whilst there were no bladder disturbances, the sexual functions were impaired. Lordosis was marked. Examination awakened intense pain. A skiagraph showed involvement of the body and transverse processes of the first, second and third lumbar vertebrae. There was a slight bend to the right and a humping of the dorso-lumbar spine. The patient was feverfree. When the report was made the patient was still under observation. Though not entirely symptom free he was walking but abjured to exercise every precaution.

* Vincent (Bull. d. l'Acad. d. Med., Paris, 1922, 3. s., lxxxvii, 517) puts on record the following case seen in consultation with Ungauer. The patient, age 18, had had in 1912, a typhoid, lasting thirty days, of moderate severity. In September, 1918, she came under the care of Ungauer for a fever of obscure nature, but believed to be either typhoid or paratyphoid. The fever did not break until November 8th or 9th, but the period of apyrexia was of short duration. Then there appeared in rapid succession numerous abscesses in the buttocks and suprapubic region, and foci of suppurative osteoperiostitis in the right fibula, right ulna and left scapula with swelling of the knee and elbow joints. All these lesions had resolved in a month, but after a remission of three weeks, bruskiy on December 20th, the fever returned, accompanied by violent pain in the sacro-lumbar region and radiating into the abdomen and thighs. Her suffering was intense. The least movement called forth cries. The right thigh was flexed on the abdomen. She was in a deplorable condition. It was at this time that she was first seen by Vincent, who diagnosed a multiple osteoperiostitis involving the sacro-lumbar spine and the iliac bones, of either typhoid or paratyphoid origin, which impression was sustained by the blood of the patient agglutinating promptly the paratyphoid B laboratory strain. He suggested the use of serum therapy but this was not accepted until March 2, 1919, by which time the patient had been bedridden five months. She began to improve immediately and was well on the road to recovery when the fourth injection was made, the others having been employed on March 5th and 8th respectively, all told about 2,000,000,000 dead paratyphoid type B bacilli having been administered in addition to a course of typhoid immunization at the same time.

From the cases reported there does not seem to be much tendency to multiple bone involvement. In only one instance was more than one bone reported attacked and these were adjacent costal cartilages. Nor does this disease appear prone to exacerbations and remissions, the morbid process going right on to pus formation. Once only was there mention of spontaneous recovery. In only one instance was there the history of a trauma as the activating agent. The bone disease originated during the course of the fever twice; during convalescence four times and in two cases was the first inkling that the patient was a carrier of this bacillus.

Two cases had never had any intestinal disturbances. In two of the cases the organism recovered was classified as belonging to type A; and in six to group B. In Cushing's case despite a discharging sinus of about three months' duration the organism was isolated in pure culture. That the organism might linger harmlessly in the system for many years and then be aroused to pernicious activity is well illustrated by Jensen and Koch's case, the pus of which contained the bacillus twenty years after the original illness. Reenstjerna

* Vincent (Bull. d. l'Acad. de Med., Par., 1922, 3.s., lxxxvii, 523) alluded briefly to a case of paratyphoid B. spondylitis observed in 1917, by Zivy, in the service of Dufour, which was treated successfully by vaccino-therapy, but furnishes no information concerning the source from which he obtained his data.

reports the bacillus alive and virulent two years after the primary disease and the other authors at periods of from nine weeks to nine months. Four of the cases were reported as cured. In only one of these was more than one operation necessary. In three no mention was made of the subsequent course. None appeared to have died. In none was the *B. paratyphoideus* suspected as the active agent behind the inflammation. When mentioned the initial symptom was invariably tenderness, which phenomenon was followed closely by pain and swelling, all of which may subside spontaneously or gradually increase in severity and abscess form; or the evolution may be arrested at any one of the stages and recession to normal occur to remain permanent or an exacerbation appear and go on to suppuration. Whilst the disease is essentially chronic and fever free; it may run an acute course with a moderate elevation of the temperature. In none of the cases were blood studies made. The clinical picture mimics very slowly that of posttyphoidal suppurative osteomyelitis from which it can only be differentiated by the history of a prior attack of paratyphoid fever or by careful bacteriological studies.

Though the recorded observations are few, the number is sufficiently large to serve as a basis for some rather interesting deductions. It is more frequent in the male than in the female. Of the eight patients, six were men; and one, a woman. In the remaining instance, the sex was not given. The ages ranged from 16 to 41 years respectively. The costal cartilages were involved four times; the tibia, twice; the femur and the mastoid, once each. The bone lesion originated twice during the course of the disease; four times during convalescence and in two instances the recovery of the organism during the bacteriological examination was the first intimation that the patient harbored this germ. The treatment which has apparently been the most successful is complete eradication of the diseased structures with drainage. Emile-Weil says he has treated two cases of paratyphoid B osteomyelitis with vaccines but gives none of the details. These he says are available in Cheron, These Paris, 1921. Unfortunately I could not obtain this publication, so can not include the cases in my collection.

additional cases.

Carrington & Davison, *Johns Hopkins Hosp. Bull.*, 1925, xxxvi, 428, see *Bull. of the Univ. of Ind. School of Med.*, 1925, X, 116. (1 case)

NOTICE

The Faculty of Physic is anxious to obtain possession of back numbers of the University of Maryland and the College of Physicians and Surgeons catalogues. Anybody having such publications in his possession from which he is willing to part will confer a favor by sending same to the Dean of the medical department, University of Maryland, Dr. J. M. H. Rowland, Lombard and Greene Sts., Baltimore, Md.

Wilensky, *Annals of Surg.*, Phila, 1926,
Samuels : *LXXXIII*, 206 (1 case)

Peloquin, *Bull. Soc. de med. mil. Franc.*
Paradon : *Paris*, 1923, xvii, 261,
(1 case)
Vogelin

Ceccarelli : *Arch. Ital. di Chir.*, Bologna,
1925, XI, 395
(1 case)

EDITORIAL

"Eyes have ye, but ye see not; ears have ye, but ye hear not."

Despite appeal upon appeal, the Burt J. Asper Fund has progressed but slowly. As yet the amount in hand is too small to produce sufficient interest to purchase a single standard text-book or to supply the annual subscription to a high class medical journal. It is hard to understand the lack of interest of our alumni in this fund. Here is a man who died under particularly distressing circumstances in the early prime of a life which gave much promise. He was aboard the naval collier Cyclops bound from South America for home; a radio dispatch announced that the ship had made good progress and should soon be in port; a hurricane was encountered and nothing further was heard of the boat or of its gallant crew. Thus the trip passes into history as one of the mysteries of the deep. When the news of the disaster was received during the heat of the War, the ship's company were acclaimed national heroes, now the catastrophe, just six years later, is all but forgotten. So small an amount as one dollar from each of our alumni would net more than five thousand dollars.

Let not the appeal fall upon deaf ears, but send in your contribution now, ere ye forget. Since the last announcement the following subscription has been received:

Frank Lynn, Baltimore.....	\$ 5.00
Already announced.....	165.00
<hr/>	
Total.....	\$170.00

DEATHS

Dr. Alfred Curtis Rice, McSherrystown, Pa.; P. and S., class of 1897; aged 47; died, November 16, 1923, of pneumonia.

Dr. Ross R. Anderson, Salt Lake City, Utah; P. and S., class of 1905; aged 44; died, November 9, 1923, of pneumonia.

Dr. James Harvey Bogel, Sebring, Florida; P. and S., class of 1893; formerly a practitioner in Virginia; aged 55; died, November 10, 1923.

Dr. Walter Tate Willis, Williston, South Dakota, class of 1889; aged 63; died, October 14, 1923, following a long illness.

Dr. Page Alexander Gibbons, Morgantown, W. Va.; class of 1887; aged 49; died, December 2, 1923, of cerebral hemorrhage.

Dr. William Lloyd Friedman, Oakland, California; B. M. C., class of 1897; aged 51; died, December 1, 1923.

Dr. Michael Ambrose Carroll; Scranton, Pa.; P. and S., class of 1889; aged 57; died, November 30, 1923, following a long illness.

Dr. John M. Sease, Little Mountain, S. C., class of 1886; aged 62; died, November 28, 1923.

Dr. Wayland W. Frames, Baltimore; P. and S.; class of 1892; died, December 26, 1923; aged 56.

Dr. Charles Arthur Sinsel, Grafton, W. Va.; class of 1888; aged 59; died, December 8, 1923, of heart disease.

Dr. Edgar Waples Robertson, Onancock, Va.; class of 1866; ex-president of the Accomack County Medical Society; aged 78; died, December 11, 1923, of senility.

Dr. George Henry Noxon, Darien, Conn.; B. M. C., class of 1893; aged 61; died, December 26, 1923.

Dr. E. Fillmore Truitt, Norfolk, Va.; P. and S., class of 1883; aged 64; died, September 2, 1923, following a long illness.

Dr. Charles A. Wells, Hyattsville, Md.; class of 1862; aged 84; died March 5, 1924, of heart disease.

Dr. Charles Church Harris, Baltimore; class of 1883; died January 11, 1924, of pneumonia. Dr. Harris was also a graduate dentist, which profession he followed for more than forty years. He was a son of the much beloved Dr. James H. Harris, for many years a Professor in the University of Maryland Dental School.

Dr. Peter George McKenna, Canton, Mass.; B. M. C., class of 1911; served in the M. C., U. S. A., in France, with the rank of Captain, during the World War; formerly on the staff of the Providence Hospital, Washington, D. C.; aged 40; died, February 3, 1924, at the Boston City Hospital, following a long illness resulting from wounds received while in the Service.

Dr. Henry A. Mowery, Marietta, Pa.; P. and S., class of 1881; aged 74; died, February 9, 1924, of senility.

Dr. Daniel Grant Sanor, Columbus, Ohio, B. M. C., class of 1894; aged 56; died, in December 1923, following a long illness.

Dr. Frank W. McLaughlin, Alton, N. H.; B. M. C., class of 1894; aged 53; died, December 17, 1923, of duodenal ulcer and broncho-pneumonia.

Dr. Franklin Waters Hains, Petersburg, Va.; class of 1888; aged 59; died, December 30, 1923, of heart disease.

Dr. Martin W. Goldsborough, Cambridge, Md.; class of 1896; aged 53; died, January 11, 1924, of cerebral hemorrhage.

Dr. Israel Elihaf Shapira, Boston, Mass.; class of 1897; aged 60; died, December 26, 1923, of heart disease.

Dr. George Sultan, Chicago, Ills.; B. M. C., class of 1893; aged 62; died suddenly, January 15, 1924, of angina pectoris.

Dr. Charles Schneider, South Williamsport, Pa.; P. and S., class of 1881; aged 63; died, January 24, 1924, following a long illness.

Dr. Joseph L. Derr, Salladasburg, Pa.; class of 1889; aged 57; died, December 25, 1923, of carcinoma of the intestine.

Dr. William Durbin Brown, Keedysville, Md.; class of 1894; aged 51; died, January 20, 1924, of heart disease.

Dr. David Oliver Leonard, Reidville, S. C.; P. and S., class of 1888; aged 58; died, January 17, 1924.

Dr. Ferdinand S. Nevling, Clearfield, Pa.; B. M. C., class of 1883; aged 76; died, December 21, 1923, of senility.

Dr. James William Williamson, Hartsville, S. C.; P. and S., class of 1886; aged 64; died, January 11, 1924, suddenly.

Dr. Edmund Brenton Fittro, Salem, West Virginia; B. M. C., class of 1924; aged 55; died, suddenly, January 15, 1924, of edema of the lungs.

Dr. Richard H. U. Dann, Elmira, New York; class of 1903; aged 46; died, January 20, 1924, of pneumonia and mitral regurgitation.

Dr. Charles F. Aplin, Logan, Ohio; class of 1879; aged 73; died, March 5, 1924, of senility.

Dr. Julian Thomas Doles, Ivor, Virginia; P. & S., class of 1887; died, February 28, 1924.

Dr. John Richmond Statham, Americus, Georgia; B. M. C., class of 1897; aged 55; died, March 7, 1924, of pneumonia.

Dr. Ralph Norvel Knowles, Bangor, Maine; class of 1909; aged 40; died, February 21, 1924, of septicemia.

Dr. John J. Clingman, Huntsville, North Carolina; P. & S., class of 1877; aged 75; died, February 8, 1924, of pneumonia.

Dr. James Everett Martin, Bluefield, West Virginia; class of 1890; aged 64; died, January 30, 1924, of cerebral hemorrhage.

Dr. Joseph I. Hering, Baltimore, Maryland; class of 1885; died, March 28, 1924. He was a son of the late Dr. Joshua W. Hering, also a graduate of the medical department of the University of Maryland.

Dr. Daniel E. Stone, Mt. Pleasant, Maryland; class of 1864; aged 85; died, April 5, 1924.

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BULLETIN

OF THE

University of Maryland School of Medicine

AND

College of Physicians and Surgeons.

Successor to THE HOSPITAL BULLETIN of the University of Maryland, BALTIMORE MEDICAL COLLEGE NEWS, and the JOURNAL of the Alumni Association of the College of Physicians and Surgeons.

VOL. IX.

JULY, 1924

NO. 1

ANNUAL ANNOUNCEMENT.

SESSION 1924-1925.

CALENDAR

1924 - 1925

SCHOOL OF MEDICINE

1924

September 22 to 27, Inc.—Examinations for advanced standing.

September 29—Last day for registration.

September 29—Instruction begins with the first scheduled period.

November 11—Armistice Day.

November 27—Holiday (Thanksgiving Day).

December 20—Christmas recess begins after the last scheduled period.

1925

January 5—Instructions resumed with the first scheduled period.

February 23—Holiday (Washington's Birthday, February 22).

April 9—Easter recess begins after the last scheduled period.

April 14—Instruction resumed with the first scheduled period.

June 6—Commencement Day.

THE UNIVERSITY OF MARYLAND

Control of the University of Maryland is vested in a Board of nine Regents, appointed by the Governor and confirmed by the Senate for terms of nine years each. The general administration of the University is vested in the President. The University Council is an advisory body, composed of the President, the Assistant to the President, the Director of the Agricultural Experiment Station, the Director of the Extension Service, and the Deans. The University Council acts upon all matters having relation to the University as a whole, or to co-operative work between the constituent groups. Each school has its own Faculty Council, composed of the Dean and members of its Faculty; each Faculty Council controls the internal affairs of the group it represents.

The University has the following educational organization:

- The College of Agriculture,
- The College of Engineering,
- The College of Arts and Sciences,
- The School of Medicine,
- The School of Law,
- The School of Dentistry,
- The School of Pharmacy,
- The College of Education,
- The College of Home Economics,
- The Graduate School,
- The Summer School,
- The Department of Physical Education and Recreation,
- The College of Commerce and Business Administration.

The Schools of Medicine, Law, Dentistry, Pharmacy and Commerce are located in Baltimore; the others in College Park, Maryland.

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R. J. KEMP, M.D., Assistant in Diseases of the Throat and Nose.

University of Maryland School of Medicine

and

College of Physicians and Surgeons.

As a result of the merger accomplished in 1915 the combined schools offer the student the abundant resources of both institutions, and, in addition, by earlier combination with the Baltimore Medical College, the entire equipment of three large medical colleges.

The School of Medicine of the University of Maryland is one of the oldest foundations for medical education in America, ranking fifth in point of age among the medical colleges of the United States. It was chartered in 1807, under the name of the College of Medicine of Maryland, and its first class was graduated in 1810. In 1812 the College was empowered by the Legislature to annex three other colleges or faculties, of Divinity, of Law, and of Arts and Sciences, and the four colleges thus united were "constituted an University by the name and under the title of the University of Maryland."

Established thus for more than a century, the School of Medicine of the University of Maryland has always been a leading medical college, especially prominent in the South and widely known and highly honored throughout the country.

The beautiful college building at Lombard and Greene Streets, erected in 1814-1815, is the oldest structure in America devoted to medical teaching. Here was founded one of the first medical libraries and the first medical college library in the United States.

Here for the first time in America dissecting was made a compulsory part of the curriculum; here instruction in Dentistry was first given (1837), and here were first installed independent chairs for the teaching of Diseases of Women and Children (1867) and of Eye and Ear Diseases (1873).

The School of Medicine was one of the first to provide for adequate clinical instruction by the erection in 1823 of its own hospital, and in this hospital intramural residency for the senior student was first established.

In 1913, juncture was brought about with the Baltimore Medical College, an institution of 32 years' growth. By this association the facilities of the School of Medicine were enlarged in faculty, equipment and hospital connection.

The College of Physicians and Surgeons was incorporated under the Legislative enactment in 1872, and established on Hanover Street in a building afterwards known as the Maternite, the first obstetrical hospital in Maryland. In 1878 union was affected with the Washington University School of Medicine, in existence since 1827, and the College was removed to its present location at Calvert and Saratoga Streets. By this arrangement medical control of the City Hospital, now the Mercy Hospital, was obtained, and on this foundation in 1899 the present admirable college building was erected.

ORGANIZATION OF THE SCHOOL OF MEDICINE.

LABORATORY AND CLINICAL FACILITIES.

THE LABORATORIES.

The laboratories are located at two centers, the group of buildings at Greene and Lombard Sts., and the Building at Calvert and Saratoga Sts. The schedule is so adjusted that the laboratory periods are placed with a view of obviating unnecessary movement on the part of the classes. The building known as Gray Laboratory, at Greene and Lombard Sts., houses three departments. The Anatomical Laboratory is placed upon the top floor, where skylights and an auxiliary modern system of electric lighting gives adequate illumination of the subjects. On this floor are the office of the department and the necessary preparation rooms. The Department of Pharmacology occupies the second floor. There is a large room for the general student laboratory, which is thoroughly equipped with apparatus of recent acquisition, and in addition contains many instruments of unique and original design. With office and stock-room adjoining, this laboratory is

complete for student experimentation. On the first floor of Gray Laboratory is the Department of Physiology. In addition to the large student laboratory, which is constructed for sections of forty-five students, there are rooms for the departmental office, preparation of material, and storage of apparatus. An additional room is devoted exclusively to mammalian experiments. In this building there is maintained an animal room where is kept an abundance of material for experimental purposes. The embalming and storage plant for the Department of Anatomy is in physical connection with the building and its special department. The laboratories of physiology and pharmacology are completely equipped with apparatus lockers so that in accord with the best ideas of instruction, the students work in groups of two each, and each group has sufficient apparatus so that the experimental work can be carried on without delay or recourse to a general stock-room.

The laboratories of Pathology and Biochemistry are located on the third floor of the Dental Building. The former department has a large student laboratory with a capacity of ninety; the tables are so placed as to secure the most satisfactory illumination for microscopic work, in addition, all of the tables are electrically equipped for substage illumination. This equipment is also provided for all laboratories where microscopic work obtains. The museum of the Department of Pathology adjoins the student laboratory. Here are available for demonstration about fifteen hundred carefully prepared and mounted specimens, and for laboratory instruction and study two hundred histories and material from autopsies. Several preparation, research, and office rooms communicate with the other rooms of this department. The laboratory of Biochemistry is constructed and equipped for sections of fifty. The laboratory is completely equipped for the facilitation of work. The office and stock-room adjoin. In the Main Building is the Museum of Anatomy, where are arranged for student reference specimens which represent the careful selection of material over a period of many years. In the University Hospital is the Student Laboratory for the analytical studies of those students who are serving as clinical clerks on the wards. A similar laboratory is maintained in the building at the N. W. corner of Saratoga and Calvert Sts., for the student work on the wards of the Mercy Hospital.

In this latter building are two laboratories for Bacteriology, Histology, and Clinical Pathology, and an additional dissecting room which is used for the course in Topographical Anatomy. The two large laboratories accommodate ninety students or the full class, and are equipped with necessary lockers for microscopes and apparatus. Each of the departments housed in this building are provided with their individual offices, preparation, and stock-rooms.

CLINICAL FACILITIES. UNIVERSITY HOSPITAL.

The University Hospital, which is the property of the University of Maryland, is the oldest institution for the care of the sick in the State of Maryland. It was opened in September, 1823, under the name of the Baltimore Infirmary, and at that time consisted of but four wards, one of which was reserved for eye cases.

The present hospital has a capacity of 275 beds devoted to general medicine, surgery, obstetrics and the various medical and surgical specialties. It is equipped with a thoroughly modern X-ray department and clinical laboratory, and a postmortem building which is constructed with special reference to the instruction of students in *pathological anatomy*.

The hospital is situated opposite the medical school buildings so that the students lose no time in passing from the lecture halls and laboratories to the clinical amphitheater, dispensary and wards.

Owing to its situation being adjacent to the largest manufacturing district of the city and the shipping district, large numbers of accident cases are received. These combined with the cases of many sick seamen and with patients from our own city furnish a large amount of clinical material. Accommodations for thirty obstetrical patients are provided in the hospital for the purpose of furnishing actual obstetrical experience to each member of the graduating class.

In connection with the University Hospital an out-door obstetrical clinic is conducted, in which every case has careful prenatal supervision, is attended during labor by a physician and graduate nurse—one senior student also being present—and is visited during the puerperium by the attending student and grad-

uate nurse. Careful prenatal, labor and puerperal records are kept, making this work of extreme value to the medical student, not only from the obstetrical standpoint, but in making him appreciate the value of social service and public health work.

During the year ending May 31, 1924, 421 cases were delivered in the hospital and 867 cases in the out-door department. Each student in the graduating class delivered an average of fifteen cases.

The dispensaries associated with the University Hospital and the Mercy Hospital are organized upon a uniform plan in order that the teaching may be the same in each. Each dispensary has the following departments: Medicine, Surgery, Children, Eye and Ear, Genito-Urinary, Gynecology, Gastro-Enterology, Neurology, Orthopaedics, Proctology, Dermatology, Throat and Nose, Tuberculosis and Psychiatry.

All students in their junior year work in the departments of Medicine and Surgery each day in one of the dispensaries.

All students in their senior year work in the special departments one hour each day.

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J. A. BUCHNESS, M.D.

*Gynecology.*R. G. WILLSE, M.D., *Chief of Clinic.*

J. M. HUNDLEY, JR., M.D.

NATHAN WINSLOW, M.D.

LEO BRADY, M.D.

GEORGE L. WISSIG, M.D.

*Obstetrics.*L. H. DOUGLASS, M.D., *Chief of Clinic.*

DUDLEY PLEASANTS BOWE, B.A., M.D.

J. G. M. REESE, M.D.

STANLEY W. MATTHEWS, M.D.

*Eye and Ear.*HARRY FRIEDENWALD, M.D., *Professor of Ophthalmology and Otology.*

J. W. DOWNEY, M.D.

H. L. SINSKY, M.D., *Chief of Clinic.**Nose and Throat.*E. A. LOOPER, M.D., *Clinical Professor of Diseases of Throat and Nose.*FRANK B. ANDERSON, *Chief of Clinic.*

GEORGE MURGATROYD, M.D.

CHARLES J. NORTON, M.D.

J. G. ALEXANDER, M.D.

*Social Service.*MISS GRACE PEARSON, *Directress.*

UNIVERSITY HOSPITAL, DISPENSARY REPORT

January 1, 1923, to December 31, 1923

<i>Department</i>	<i>Cases</i>		<i>Total</i>
	<i>New</i>	<i>Old</i>	
Pediatrics-----	2,111	13,676	15,787
Dermatology-----	2,874	4,366	7,240
Medical-----	1,382	3,691	5,073
Obstetrics-----	1,448	3,937	5,385
Surgical-----	1,703	5,685	7,388
Ophthalmology-----	672	1,397	2,069
Gynecology-----	1,006	2,013	3,019
Orthopedics-----	283	2,645	2,928
Nose and Throat-----	738	1,047	1,785
Neurology-----	193	945	1,138
Gastro-Enterology-----	181	811	992
Tuberculosis-----	178	235	413
Proctology-----	90	104	194
Psychiatric-----	76	74	150
Cystoscopy-----	57	140	197
Dental-----	25	13	38
Genito-Urinary-----	2,856	6,249	9,105
	15,873	47,028	62,901

MERCY HOSPITAL.

The Sisters of Mercy first assumed charge of the Hospital at the corner of Calvert and Saratoga Streets, then owned by the Washington University, in 1875. By the merger of 1878 the Hospital came under the control of the College of Physicians and Surgeons, but the Sisters continued their work of administering to the patients.

In a very few years it became apparent that the City Hospital as it was then called, was much too small to accommodate the rapidly growing demands upon it. However, it was not until 1888 that the Sisters of Mercy, with the assistance of the Faculty of the College of Physicians and Surgeons, were able to lay the cornerstone of the present Hospital. This building was completed and occupied late in 1889. Since then the growing demands for more space has compelled the erection of additions, until now there are accommodations for 351 patients.

In 1909 the name was changed from The Baltimore City Hospital to Mercy Hospital.

Mercy Hospital is located in the center of a city of 800,000 inhabitants.

The clinical material in the free wards is under the exclusive control of the Faculty of the University of Maryland School of Medicine and College of Physicians and Surgeons.

It adjoins the College building, and all surgical patients from the public wards are operated upon in the College operating rooms. This union of the Hospital and College buildings greatly facilitates the clinical teaching, as there is no time lost in passing from one to the other.

Mercy Hospital is the hospital of the United Railways and Electric Company of Baltimore City, and receives patients from the Baltimore and Ohio Railroad Company and from the Pennsylvania Railroad Company and its branches.

MERCY HOSPITAL STAFF.

SURGICAL DIVISION

ARCHIBALD C. HARRISON, M.D.
C. F. BLAKE, M.D.

ALEXIUS MCGLANNAN, M.D.
W. D. WISE, M.D.

Associate Surgeons.

ELLIOT H. HUTCHINS, M.D.
R. H. LOCHER, M.D.
THOMAS R. CHAMBERS, M.D.

HARVEY B. STONE, M.D.
A. M. EVANS, M.D.
F. L. JENNINGS, M.D.

Assistant Surgeons.

I. O. RIDGLEY, M.D.
N. C. MARVEL, M.D.
EVERARD BRISCOE, M.D.

F. X. KEARNEY, M.D.
CHAS. MAXSON, M.D.
H. B. McELWAIN, M.D.

D. J. PESSAGNO, M.D.

Ophthalmologist and Otologist.

HARRY FRIEDENWALD, M.D.

Associates.

H. K. FLECK, M.D.

J. W. DOWNEY, M.D.

Rhinologists and Laryngologists.

FRANK D. SANGER, M.D.

GEORGE W. MITCHELL, M.D.

Associate Rhinologists and Laryngologists.

W. F. ZINN, M.D.

RAYMOND MCKENZIE, M.D.

Proctologist.

CHARLES F. BLAKE, M.D.

Associate.

L. J. ROSENTHAL, M. D.

Orthopaedic Surgeon.

ALBERTUS COTTON, M.D.

Associate.

H. L. ROGERS, M.D.

Urologists.

A. G. RYTINA, M.D.

A. J. GILLIS, M.D.

MEDICAL DIVISION.

Physicians.

MAURICE C. PINCOFFS, M.D.

WILLIAM F. LOCKWOOD, M.D.

CARY B. GAMBLE, M.D.

STANDISH McCLEARY, M.D.

H. G. BECK, M.D.

Associates.

HUBERT C. KNAPP, M.D.

E. E. MAYER, M.D.

C. C. W. JUDD, M.D.

BARTUS T. BAGGOTT, M.D.

J. W. MARTINDALE, M.D.

G. McLEAN, M.D.

LEON FREEDOM, M.D.

Assistant.

H. R. PETERS, M.D.

Gastro-Enterologist.

JULIUS FRIEDENWALD, M.D.

Associates.

T. FREDERICK LEITZ, M.D.

THEODORE MORRISON, M.D.

Assistants.

MAURICE FELDMAN, M.D.

JOSEPH SINDLER, M.D.

Pediatricists.

JOHN RUHRAH, M.D.

EDGAR B. FRIEDENWALD, M.D.

Assistant.

F. B. SMITH, M.D.

Neurologist and Psychiatrist.

ANDREW C. GILLIS, M.D.

Assistant.

MILFORD LEVY, M.D.

Dermatologist.

MELVIN ROSENTHAL, M.D.

OBSTETRICAL DIVISION.

Obstetricians.

GEO. W. DOBBIN, M.D.

CHARLES E. BRACK, M.D.

Associate Obstetricians.

E. P. SMITH, M.D.

T. K. GALVIN, M.D.

Assistant Obstetrician.

J. J. ERWIN, M.D.

GYNECOLOGICAL DIVISION

Gynecologists.

WILLIAM S. GARDNER, M.D.

ABRAHAM SAMUELS, M.D.

GEORGE A. STRAUSS, M.D.

Associate Gynecologists.

T. K. GALVIN, M.D.

E. P. SMITH, M.D.

PATHOLOGICAL DIVISION.

Pathologists.

STANDISH MCCLEARY, M.D.

HUGH R. SPENCER, M.D.

Clinical Pathologist.

H. T. COLLENBERG, M.D.

Technicians—SISTER M. JOAN, Ph.G., R.N., ANNA CHENOWETH, R.N.

DEPARTMENT OF DENTISTRY

Attending Dentists.

NORVAL McDONALD, D.D.S.

LE ROY KNOBLE, D.D.S.

X-RAY DEPARTMENT.

Radiographers.

ALBERTUS COTTON, M.D.

HARRY L. ROGERS, M.D.

MERCY HOSPITAL RESIDENT STAFF.

K. W. GOLLEY, M.D., *Chief Resident.**Resident Surgeons.*

H. F. BONGARDT, M.D.

THEODORE GIFFEN, M.D.

Resident Gynecologist.

T. J. TOUHEY, M.D.

Resident Physician.

F. T. KYPER, M.D.

Assistant Resident Surgeons.

M. I. BERKSON, M.D.

LEO H. MYNES, M.D.

Internes.

H. M. BEERMAN, M.D.

H. R. McCONNELL, M.D.

D. J. MAURILLO, M.D.

JOS. G. MILLER, M.D.

JACOB M. MILLER, M.D.

PETER G. MOTTA, M.D.

ALBERT SCAGNETTI, M.D.

EDW. J. WHELAN, M.D.

DISPENSARY STAFF OF MERCY HOSPITAL.

*Surgery.**Supervisors.*

ALEXIUS McGLANNAN, M.D.

W. D. WISE, M.D.

Attending Surgeons.

A. M. EVANS, M.D.

O. H. LLOYD, M.D.

D. H. MOHR, M.D.

CLYDE MARVEL, M.D.

I. O. RIDGELY, M.D.

EVERARD BRISCOE, M.D.

H. B. McELWAIN, M.D.

Genito-Urinary Surgery.

A. J. GILLIS, M.D.

Orthopaedic Surgery.

ALBERTUS COTTON, M.D.

HARRY L. ROGERS, M.D.

*Medicine.**Supervisors, Wm. F. LOCKWOOD, M.D., M. C. PINCOFFS, M.D.*

Attending Physicians.

HERMAN SEIDEL, M.D.
WETHERBEE FORT, M.D.
F. N. HILLIS, M.D.

B. T. BAGGOTT, M.D.
F. M. VILLELA, M.D.
H. R. PETERS, M.D.

Diseases of Stomach.

Supervisor, JULIUS FRIEDENWALD, M.D.

Attending Physicians.

T. FREDERICK LEITZ, M.D.
M. FELDMAN, M.D.
THEODORE H. MORRISON, M.D.

JOSEPH SINDLER, M.D.
S. ZINBERG, M.D.
A. EISENBERG, M.D.

E. E. GREMLER, M.D.

W. F. ZINN, M.D. *Esophagoscopist.*

Nervous Diseases.

Supervisor, A. C. GILLIS.

Attending Physicians.

MILFORD LEVY, M.D.

R. A. WARNER, M.D.

Pediatrics.

I. J. FEINGLOS, M.D.

Diseases of Women.

Supervisors.

W. S. GARDNER, M.D.

A. SAMUELS, M.D.

Attending Surgeons.

E. P. SMITH, M.D.
J. J. ERWIN, M.D.

T. K. GALVIN, M.D.
C. F. J. COUGHLIN, M.D.

Diseases of Nose and Throat.

W. F. ZINN, M.D.

R. F. MCKENZIE, M.D.

Diseases of Eye and Ear.

H. K. FLECK, M.D.
J. I. KEMLER, M.D.

J. W. DOWNEY, M.D.
M. RASKIN, M.D.

F. A. PACIENZA, M.D.

Proctology.

L. J. ROSENTHAL, M.D.

Dermatology.

MELVIN ROSENTHAL, M.D.

Assistant.

WILLIAM G. COPPAGE, M.D.

Dental Clinic.

NORVAL McDONALD, D.D.S.

LE ROY KNOBLE, D.D.S.

J. AUBREY LEE, D.D.S.

*Social Service Department.*CATHERINE CAMPBELL, R.N., *Director.**Dispensary Directress.*

ELIZABETH A. MOORE, R.N.

MERCY HOSPITAL, DISPENSARY REPORT

*January 1, 1923, to December 31, 1923,**Sister M. Helen, Directress.*

<i>Dispensary Clinics</i>	<i>Cases</i>		<i>Total</i>
	<i>New</i>	<i>Old</i>	
Surgical-----	873	2,355	3,228
Medical-----	917	948	1,865
Gynecological-----	333	864	1,197
Eye and Ear-----	419	758	1,177
Nose and Throat-----	702	770	1,472
Neurological-----	142	368	510
Pediatric-----	64	61	125
Gastro-Intestinal-----	208	634	842
Dental-----	211	165	376
Proctological-----	57	63	120
Orthopedic-----	187	722	909
Dermatological-----	254	546	800
Genito-Urinary-----	4,367	8,254	12,621
	8,734	16,508	25,242

OTHER CLINICAL FACILITIES.

THE MUNICIPAL HOSPITALS—BAY VIEW.

The clinical advantages of the University have been largely increased by the liberal decision of the Board of Supervisors of City Charities to allow the immense material of these hospitals to be used for the purpose of medical education. There are daily visits and clinics in medicine and surgery by the Staff of the Hospitals. The autopsy material is unsurpassed in this country in amount, thoroughness in study, and the use made of it in medical teaching.

The Municipal Hospitals consist of following separate hospitals:

The General Hospital, 160 beds.

The Hospital for Chronic Cases, 88 beds.

The Municipal Hospital for Tuberculosis, 190 beds.

City Detention Hospital for Insane, 450 beds.

STAFF OF THE CITY HOSPITALS AT BAYVIEW.

VISITING STAFF

THOMAS R. BOGGS, S.B., M.D., *Physician-in-Chief.*

ARTHUR M. SHIPLEY, Sc.D., M.D., *Surgeon-in-Chief.*

C. C. HABLSTON, M.D., *Physician-in-Chief to the Municipal Tuberculosis Hospital.*

HARRY GOLDSMITH, M.D., *Physician-in-Charge of the City Detention Hospital for the Insane*

JOHN R. CASH, M.D., *Visiting Pathologist.*

R. B. WRIGHT, M.D., *Resident Pathologist.*

CONSULTING STAFF.

Ophthalmologist.

JAMES J. MILLS, M.D.

Otologist.

WILLIAM TARUN, M.D.

Gynecologist.

R. G. WILLSE, M.D.

Urologist.

W. H. TOULSON, M.D.

Laryngologists.

H. R. SLACK, M.D.

EDWARD A. LOOPER, M.D.

Pediatrician.

JOHN RUHRAH, M.D.

Neurologist.

HENRY M. THOMAS, M.D.

Psychiatrists.

HENRY J. BERKELY, M.D.

ADOLPH MEYER, M.D.

Orthopedist

H. L. WHEELER, M. D.

Assistant Visiting Physician.

CHARLES R. AUSTRIAN, M.D

Assistant Visiting Surgeons

FRANK S. LYNN, M.D.

C. A. REIFSCHNEIDER, M.D.

JAMES LAWRENCE KERNAN HOSPITAL
THE JAMES LAWRENCE KERNAN HOSPITAL AND
INDUSTRIAL SCHOOL OF MARYLAND FOR
CRIPPLED CHILDREN.

This institution contains seventy-five beds for the active treatment of deformities. It is situated at "Radnor Park," a colonial estate of seventy-five acres at Hillsdale, within the western city limits, reached by trolley.

This institution has city, state, endowed and private beds and every modern facility for the treatment of orthopaedic cases as well as a most beautiful park-like environment and farm, and is closely affiliated with the University of Maryland for bed-side instruction.

STAFF.

R. TUNSTALL TAYLOR, A.B., M.D., *Surgeon in Chief.*

Associate Surgeons.

SYDNEY M. CONE, A.B., M.D.

ALBERTUS COTTON, A.M., M.D.

COMPTON RIELY, M.D.

Attending and Dispensary Surgeons.

W. H. DANIELS, M.D.

J. ALBERT KEY, B.A., M.D.

H. L. WHEELER, M.D.

Physio-Therapists and Instructors in Corrective Gymnastics.

MISS ANITA RENSHAW PRESSTMAN

MISS ELIZABETH EMORY.

MISS FLORENCE GRAPE.

MISS MARY H. LEE, *Principal of School.*

MISS NORA ROBINSON, *Assistant*

Roentgenologists.

HENRY J. WALTON, M.D.

J. F. LUTZ, M.D.

Attending Plastic Surgeon.

JOHN STAIGE DAVIS, B.Sc., M.D.

Pediatricist.

BENJAMIN TAPPAN, B.A., M.D.

Attending Surgeon.

A. M. SHIPLEY, M.D.

Attending Neuro-Surgeon.

CHARLES BAGLEY, JR., M.D.

Attending Laryngologist.

F. B. ANDERSON, M.D.

Attending Dermatologist.

JOHN R. ABERCROMBIE, A.B., M.D.

Attending Pathologist.

HOWARD J. MALDEIS, M.D.

Attending Urologist.

GIDEON TIMBERLAKE, M.D.

Attending Oculist and Aurist.

WILLIAM TARUN, M.D.

Attending Neurologist.

IRVING J. SPEAR, M.D.

Attending Dentists.

G. E. P. TRUITT, D.D.S.

J. B. BELL, D.D.S.

H. M. BLUMENTHAL, D.D.S.

Consulting Surgeons.

J. M. T. FINNEY, A.B., M.D.

RANDOLPH WINSLOW, A.M., M.D., LL.D. ARCHIBALD C. HARRISON, M.D.

Consulting Physicians.

THOMAS R. BROWN, A.B., M.D.

LLEWELLYS F. BARKER, A.B., M.D.

THOMAS F. FUTCHER, A.B., M.D.

WILLIAM S. THAYER, A.B., M.D.

Consulting Oculist.

HIRAM WOODS, M.D., LL. D.

Consulting Laryngologist.

JOHN N. MACKENZIE, A.B., M.D.

Dispensary and Social Service Nurse.

MISS MABEL BROWN, R.N.

Head Nurse.

MISS LOUISE SCHAUB, R.N.

Resident Interne

R. H. HOLPER.

ST. VINCENT'S INFANT ASYLUM.

The facilities of this institution, containing 250 infants and children, have been kindly extended to the University of Maryland by the Sisters of Charity. This large clinic enables this school to present to its students liberal opportunities for the study of diseases of infants and children.

STAFF.

Visiting Physician.

CHARLES R. GOLDSBOROUGH, M.D.

Visiting Surgeon.

NATHAN WINSLOW, M.D.

Visiting Obstetrician.

L. H. DOUGLASS, M.D.

Visiting Dermatologist.

JOHN BUCHNESS, M.D.

Visiting Orthopedist.

WILLIAM H. DANIELS, M.D.

INSTITUTIONS FOR THE TREATMENT OF THE INSANE
AND FEEBLE-MINDED.

THE SHEPPARD AND ENOCH PRATT HOSPITAL FOR THE INSANE. This institution is one of the most modern hospitals for the treatment and care of the insane in this country. It is well endowed and its superintendent is R. M. Chapman, M. D., Professor of Psychiatry at the University of Maryland. In this hospital intensive treatment and study of mental diseases is carried on, a large number of the patients entering voluntarily. The students under the direction of Dr. Chapman and his assistants in a series of clinics are shown the early manifestations and the various stages of mental diseases, the methods of treatment, and their effects.

SPRING GROVE HOSPITAL. Through the courtesy of the Superintendent of this institution, the Professor of Psychiatry is enabled to present to the weekly clinics to the fourth year class the different types of psychoses and psycho-neuroses.

LIBRARIES.

The University Library, founded in 1813 by the purchase of the collection of Dr. John Crawford, now contains 15,256 volumes, a file of 60 current journals, and several thousand pamphlets and reprints. During the year ending December 31, 1923, 350 volumes were added. It is well stocked with recent literature, including books and periodicals of general interest. The home of the Library is Davidge Hall, a comfortable and commodious building in close proximity to the class rooms and the Laboratories of the Medical Department. The Library is open daily during the year, except in August, for use of members of the Faculty, the students, and the profession generally.

The Library of the Medical and Chirurgical Faculty of Maryland, containing many thousands of volumes, is open to the students of the school. The leading medical publications of the world are received by the library and complete sets of many journals are available. Other Libraries of Baltimore are the Peabody (181,000 volumes) and the Enoch Pratt Free Library (355,817 volumes).

All these libraries are open to the students of the school without charge.

ORGANIZATION OF THE CURRICULUM.

The following curriculum is the result of a thorough revision of teaching in this school in order to meet modern requirements. The multiplication of specialties in medicine and surgery necessitates a very crowded course and the introduction of electives will very soon be depended on to solve some of the difficulties.

The curriculum is organized under eleven departments:

1. Anatomy (including Histology and Embryology).
2. Physiology.
3. Biological Chemistry.
4. Pharmacology and Materia Medica.
5. Pathology.
6. Bacteriology and Immunology.
7. Medicine (including Medical Specialties).
8. Surgery (including Surgical Specialties).
9. Obstetrics.
10. Gynecology.
11. Ophthalmology and Otology.

The instruction is given in four years of graded work.

Several courses of study extend through two years or more, but in no case are the students of different years thrown together in the same course of teaching.

The first and second years are devoted largely to the study of the structures and functions of the normal body. Laboratory work occupies most of the student's time during these two years.

Some introductory instruction in Medicine and Surgery is given in the second year. The third and fourth years are almost entirely clinical.

A special feature of instruction in the school is the attempt to bring together teacher and student in close personal relationship. In many courses of instruction the classes are divided into small groups and a large number of instructors insures attention to the needs of each student.

In many courses the final examination as the sole test of proficiency has disappeared and the student's final grade is determined largely by partial examinations, recitations and assigned work carried on throughout the course.

DEPARTMENT OF ANATOMY, INCLUDING HISTOLOGY AND EMBRYOLOGY.

C. L. DAVIS, M.D.	Professor of Anatomy
TILGHMAN B. MARDEN, A.B., M.D. ..	Professor of Histology and Embryology
LOUIS C. DOBIHAL, M.D.	Instructor in Histology
J. D. HOLOFCENER, M.D.	Instructor in Histology
STANLEY W. MATTHEWS, M.D.	Instructor in Histology
EVERARD W. BRISCOE	Assistant in Anatomy
WM. R. JOHNSON	Assistant in Anatomy
ROBT. W. JOHNSON	Assistant in Anatomy

FIRST YEAR. *Didactic.* Five hours each week for thirty-two weeks. Each day, preceding the laboratory period, a quiz and demonstration of from forty to fifty minutes is held, covering the laboratory work for the day.

Laboratory. Eighteen hours each week for thirty-two weeks. This course includes a complete dissection of the human body, including the central nervous system. Abundance of good material is furnished and the student is aided in his work by competent demonstrators. Practical examinations are held at frequent intervals throughout the session and each student will be held to strict account for material furnished him. Each student is furnished a skeleton and a deposit is required to insure its return in good condition at the end of the session.

Histology.

FIRST YEAR. Lectures, recitations and laboratory work, ten hours each week during first semester; three hours each week during second semester. The most important part of the work will be done in the laboratory, where each student will be provided with apparatus, staining fluids and material necessary for the preparation of specimens for microscopical examination. An important aid to the course is the projection microscope and bal-opticon which are used for the projection upon a screen, of magnified images of the specimens actually used in the laboratory, and of illustrations from standard text books.

Embryology.

Lectures, recitations, and laboratory work; one hour each week during the first semester, and seven hours each week during the second semester.

This course includes the study of the development of the chick and the fundamental principles of mammalian embryology. In the laboratory, the hen's egg will be studied in its various stages of development, and sections of the chick at different periods of incubation will be made and studied microscopically. The latter part of the course will be devoted to the study of sections through different regions of mammalian embryos.

Special emphasis is laid upon the development in the human.

DEPARTMENT OF PHYSIOLOGY

BARTGIS MCGLONE, A.B., PH. D.....	Professor of Physiology
CHARLES C. CONSER, M.D.....	Associate Professor of Physiology
FERDINAND A. RIES, M.D.....	Associate in Physiology
JOSEPH P. POKORNY, M.D.....	Instructor in Physiology
GEORGE A. KNIPP, M.D.....	Instructor in Physiology
FIRMADGE K. NICHOLS, A.B., M.D.....	Instructor in Physiology
J. OGLE WARFIELD, JR., A.B., A.M., M.D.....	Assistant in Physiology

The course in Physiology extends throughout the First and Second Years. It consists of a series of lectures, covering the field of human physiology, laboratory work, demonstrations, and frequent recitations. It is constantly in the mind of the department that this course is introductory to the study of medicine. The recitations cover the subject-matter of the lectures and the experiments performed in the laboratory.

FIRST YEAR. 1. This course includes lectures and recitations upon the physiology of the blood and circulation, respiration, muscle and nerve, a portion of the central nervous system, and special senses, and such chemical and physical facts as are necessary for a proper understanding of the physiology taught. Two lectures and a recitation weekly throughout the year. Dr. McGlone, assisted by Dr. Ries.

SECOND YEAR. 2. *Didactic instruction.* During this year the remaining topics of physiology are covered by lectures and demonstrations. As in the first year frequent recitations will be held. The subject-matter includes the physiology of digestion and secretion, nutrition, metabolism, internal secretion, the central nervous system, and the eye and ear. Lectures, demonstrations, and recitations, three hours per week. Dr. McGlone, assisted by Drs. Conser and Ries.

3. *Experimental Physiology*. This is a laboratory course in the dynamics of muscle and nerve, studies in circulation and respiration, and physiology of the special senses. Apart from the acquisition of the facts of physiology, the student is taught to observe accurately, record carefully the results of his observations, and from these results draw an independent conclusion. He is also trained in the use of instruments which are of value to him in his clinical years. Three hours weekly throughout the year. Drs. McGlone, Ries, Conser, Pokorny, Knipp, and Warfield.

4. *Clinical Physiological Conference*. During the second semester of the second year a clinic is held each week in conjunction with the Department of Medicine. At this clinic an attempt is made to correlate the work and the instruction of the two departments and to serve as an introduction to the work of the clinical years. Drs. Pincoffs, (Professor of Medicine), and McGlone.

5. *Elective Course in Physiological Technique*. This course is offered to Sophomores. Three hours per week. Second semester. Dr. McGlone.

6. *Special Mammalian Physiology*. This is a laboratory course intended for advanced laboratory students (optional) who may wish to do special work in this line of physiology. Hours to be arranged. Dr. McGlone.

PHARMACOLOGY AND MATERIA MEDICA.

WILLIAM HENRY SCHULTZ, Ph.B., Ph.D.....	Professor of Pharmacology
O. G. HARNE, A.B.....	Associate Professor of Pharmacology
WILLIAM GLENN HARNE.....	Assistant in Pharmacology
ESTHER. F. KUHN.....	Assistant in Pharmacology

1. *Pharmacology*. *Materia Medica* and *Prescription Writing* required of all second year medical students during the first semester. Didactic, three hours a week; Laboratory, three hours a week.

This course is a prerequisite to all other courses in Pharmacology. Special emphasis is laid upon laboratory methods of observation and of intelligent note-taking. The essentials of prescription writing are taught and the student is introduced to the official pharmacopoeal preparations.

Not only is the student taught intelligently the use of the United States Pharmacopoeia and the National Formulary, but the principles underlying the establishment of some of the most practical recipes are attacked from a didactic point of view.

2. *Systematic Pharmacology.* Required of all second year medical students. Three hours a week during the year, two lecture periods and one period for quiz and general conferences. Special care is taken to adapt the material to the practical need of the medical student. Emphasis, however, is laid upon the pharmacological action of drugs as a pure science in order that a critical attitude toward drugs may be instilled. As the student masters the pharmacology of an important drug, its dosage, incompatibilities, and practical applications are driven home by systematic assignments of prescription writing, quizzes, and conferences.

3. *Pharmacodynamics.*—Second semester. Required of all second year students. Prerequisite pharmacology 1. Laboratory, six hours a week.

The course runs parallel with pharmacology 2. Being a laboratory course it furnishes much didactic material used in the class conferences and lectures of pharmacology No. 2.

As the student's ability in handling biological material develops, experiments involving the more difficult technique of pharmacological experimentation are introduced. Special emphasis is laid upon the student's ability to handle live tissues and to make first-hand observations of a given drug's action, regardless of what standard text-books teach.

Class conferences, discussions, and the reading of assigned papers are used to supplement the laboratory and lecture. In these conferences the professor in charge attempts to summarize the class work as a whole, thereby properly coordinating it. It is by these means that the student acquires a critical and scientific attitude toward *official* and *new and non-official remedies*. The study is limited for the most part to such drugs as are known to have a definite pharmacological action and therapeutic value.

4. *Special Pharmacodynamics.* (Credit according to work done.)

This course is open to advanced students and special workers who desire advanced training, or who wish to pursue some special problem in Pharmacology or Toxicology. Hours to be arranged. Professor Schultz.

5. *Research in Pharmacology and Chemo-Therapy.* Properly qualified students are admitted to the laboratory with a view to their carrying on original investigations in drug action. The newly equipped laboratories are well adapted for post-graduate study and research in Pharmacology. Hours will be arranged to suit the applicant. Professor Shultz.

DEPARTMENT OF PATHOLOGY.

HUGH R. SPENCER, M. D.	Professor of Pathology.
STANDISH MCCLEARY, M. D.	Professor of Pathology.
SYDNEY CONE, M. D.	Associate Professor of Pathology.
WM. J. CARSON, M. D.	Associate Professor of Pathology.
A. E. GOLDSTEIN, M. D.	Instructor in Pathology.
M. J. HANNA, M. D.	Instructor in Pathology.
R. B. WRIGHT, M. D.	Assistant in Pathology.

Courses of instruction in pathology are given during the second, third, and fourth years. The courses are based on previous study of normal structure and function and aim to outline the natural history of disease. The instruction is made as practical as possible that the student may become familiar with the appearance of organs and tissues in disease and may be able to correlate anatomical lesions with clinical symptoms and signs.

1. **GENERAL PATHOLOGY AND HISTO-PATHOLOGY** This course is given to second year students. It includes the study and demonstration of disturbances of the body fluids, disturbances of structure, nutrition and metabolism of cells, disturbances of fat, carbohydrate and protein metabolism, disturbances in pigment metabolism, inflammation and tumors. The laboratory course consists in a daily preliminary talk on the subject for study, following which the student takes up the study of microscopical sections. Gross material from autopsy and from the museum is demonstrated in conjunction with the microscopical study.

2. **APPLIED PATHOLOGY, INCLUDING GROSS MORBID ANATOMY AND MORBID PHYSIOLOGY.** Third year students: In this course the special relationship of the gross and microscopical lesions to clinical symptoms and signs is emphasized. Fresh material from autopsy collected at the various hospitals is demonstrated and supplemented by a study of the respective autopsy protocols.

Special stress is laid upon the study of the infectious diseases and where possible the causative agents are studied.

3. **AUTOPSIES.** Third year. Autopsy technic is taught to small groups of students by special instruction at autopsies performed at the various hospitals. Students are required to assist at the autopsy, study the organs, examine the microscopical sections, make cultures and prepare autopsy protocols.

4. **Clinical Pathological Conference, Fourth Year.** In collaboration with the Department of Medicine. Material from autopsies is studied with reference to the correlation of the clinical aspects with the pathological findings.

5. **ADVANCED WORK IN PATHOLOGY.** Properly qualified students will be permitted to carry out advanced or research work along the lines of experimental pathology. Adequate space and equipment is available.

DEPARTMENT OF BACTERIOLOGY AND IMMUNOLOGY.

FRANK W. HACHTEL, M.D.	Professor of Bacteriology
WILLIAM ROYAL STOKES, M.D. Sc.D.	Professor of Bacteriology
LOUIS F. KRUMREIN, M.D.	Instructor in Bacteriology
J. A. F. PFEIFFER, M.D.	Instructor in Bacteriology
HENRY F. BUETTNER, M.D.	Instructor in Bacteriology

Instruction in bacteriology is given in the laboratory to the students of the first year during the second semester. This includes the various methods of preparation and sterilization of culture media, the study of pathogenic bacteria and the bacteriological examination of water and milk. The bacteriological diagnosis of the communicable diseases is also included in this course. Animal inoculations are made in connection with the bacteria studied. The most important protozoa are also studied in the laboratory. The principles of general bacteriology are taught by quiz, conference and lecture.

The principles of immunology are presented by means of quizzes conferences and lectures to the second year class throughout the first semester and practical experiments are carried out by the class in laboratory sessions of three hours each held twice weekly during the semester.

DEPARTMENT OF BIOLOGICAL CHEMISTRY.

H. BOYD WYLIE, M.D.	Professor of Biological Chemistry
FRANK N. OGDEN, M.D.	Associate in Biological Chemistry

Instruction in Biological Chemistry comprises laboratory work, lectures and conferences.

LABORATORY WORK. The first few weeks of the laboratory work consists in the preparation of normal and standard solutions which requires careful use of the analytical balance and of volumetric glassware. The knowledge gained in this preliminary period is then put to practical application in the making of quantitative determinations of nitrogenous compounds of known nitrogen content. Daily reports are required of each student in this work and a careful record is kept of his ability.

At the end of this period there follows a long course of laboratory work on the chemistry and metabolism of the carbohydrates, proteins and lipins. Each type of foodstuff is considered separately; first its chemistry is studied and then its metabolism. In following this arrangement the usual long stretch of the pure chemistry of all the foodstuffs is eliminated.

Experiments on the tissues of the body then follow, and precede the final group of experiments on bile, milk and those which relate to the more thorough study of blood and urine.

Throughout the laboratory work the older methods have been excluded, and those tests which are a duplication of the same principle have been reduced to minimum. Quantitative tests include only those which are representative and essential. A great deal of stress is laid upon the importance of quantitative and metabolic experiments, so that this type of work constitutes the major part of the laboratory experiments in this course.

LECTURES. The lectures precede or run parallel to the laboratory work, as far as possible. The first lectures deal with laboratory technic, the chemistry of solutions and indicators, osmosis, the chemistry of colloids, catalysis, reversible reactions, the law of mass action and a discussion of enzymes. The lectures which follow refer to the chemistry and metabolism of carbohydrates, proteins and lipins. Relatively less time is given to the discussion of the chemistry of the various foodstuffs and more to the discussion of their metabolism. In these lectures the fundamental principles (biological, physical and chemical) are emphasized, not, however, to the exclusion of the correlation of the normal and abnormal metabolism.

The final lectures relate to the discussions of the secretions, including milk, and of the blood and urine, including the metabolism of inorganic substances, salts and water.

DEPARTMENT OF MEDICINE.

MAURICE C. PINCOFFS, S.B., M.D.,	Professor of Medicine
GORDON WILSON, M.D.	Professor of Medicine
CARY B. GAMBLE JR., A.M., M.D.	Professor of Medicine
STANDISH MCCLEARY, M.D.	Professor of Pathology and Clinical Medicine
JOS. E. GICHNER, M.D.	Professor of Clinical Medicine
CHARLES W. MCELFFRESH, M.D.	Professor of Clinical Medicine
G. CARROLL LOCKARD, M.D.	Professor of Clinical Medicine
HARVEY G. BECK, Sc.D., M.D.	Professor of Clinical Medicine
PAUL W. CLOUGH, B.S., M.D.	Associate Professor of Medicine
C. C. W. JUDD, A.B., M.D.	Associate Professor of Medicine
SYDNEY R. MILLER, M.D.	Associate Professor of Medicine
H. D. MCCARTY, M.D.	Associate Professor of Clinical Medicine
WM. H. SMITH, M.D.	Associate Professor of Clinical Medicine
H.J. MALDEIS, M.D.	Associate Professor of Medical Jurisprudence
S. LLOYD JOHNSON, A.B., M.D.	Assistant Professor of Medicine
HARRY M. STEIN, M.D.	Assistant Professor of Medicine
JOHN G. HUCK, M.D.	Assistant Professor of Medicine
R. C. METZEL, M.D.	Associate in Clinical Medicine
W. I. MESSICK, M.D.	Associate in Clinical Medicine
GEORGE MCLEAN, M.D.	Associate in Medicine
L. A. M. KRAUSE, M.D.	Associate in Medicine
E. E. MAYER, M.D.	Instructor in Medicine
D. CORBIN STREETT, M.D.	Instructor in Medicine
C. C. HABLSTON, M.D.	Instructor in Medicine
J. W. MARTINDALE, M.D.	Instructor in Medicine
HENRY SHEPPARD, M.D.	Instructor in Medicine
BARTUS T. BAGGOTT, M.D.	Instructor in Medicine
LEON FREEDOM, M.D.	Instructor in Medicine
HERMAN SEIDEL, M.D.	Assistant in Medicine
WETHERBEE FORT, M.D.	Assistant in Medicine
WILLIAM MICHEL, M.D.	Assistant in Medicine
M. G. GICHNER, M.D.	Assistant in Medicine
L. L. GORDY, M.D.	Assistant in Medicine
F. L. BADAGLIACCA, M.D.	Assistant in Medicine
H. R. PETERS, M.D.	Assistant in Medicine
H. M. BUBERT, M.D.	Assistant in Medicine

GENERAL OUTLINE.

SECOND YEAR

Introduction to clinical medicine.

- (a) Introductory physical diagnosis.
(1 hour a week, first semester).
(2 hours a week, second semester).
- (b) Clinical lectures on pathological physiology.
(1 hour a week, second semester).

THIRD YEAR.

I. The methods of examination (13 hours a week).

- (a) History taking.
- (b) Physical diagnosis.
- (c) Clinical pathology.

These subjects are taught and practiced in the out-patient department and in the clinical laboratory.

II. The principles of medicine (7 hours a week).

- (a) Lectures, clinics and demonstrations in general medicine, neurology, pediatrics and preventive medicine.

III. The principles of therapeutics (2 hours a week).

Lectures and demonstrations in general therapeutics, physical therapeutics and materia medica.

FOURTH YEAR.

The practice of medicine.

I. Clinical clerkship on the medical wards.

(26 hours a week for ten weeks).

- (a) Responsibility, under supervision, for the history, physical examination, laboratory examinations and progress notes of assigned cases.
- (b) Ward classes in general medicine, the medical specialties, and therapeutics.

II. Clinics in general medicine and the medical specialties (6 hours a week).

III. Dispensary work in the medical specialties.

IV. Clinical pathological conferences (1 hour a week).

Medical Dispensary Work.

The medical dispensaries of both the Mercy and the University Hospitals are utilized for teaching in the third year. Each student spends two periods a week of two hours each in dispensary work. The work is done in groups of four to six students under an instructor. Systematic history taking is especially stressed. Physical findings are demonstrated. The student becomes familiar with the commoner acute and chronic disease processes.

Physical Diagnosis.

SECOND YEAR. Didactic lectures and practical demonstrations in topographical anatomy and normal physical signs.

CLINICAL PATHOLOGY.

JOHN G. HUCK, M.D.	-----	} Head of Department Assistant Professor of Medicine
H. J. MALDEIS, M.D.	-----	
S. R. MILLER, M.D.	-----	Associate Professor of Medical Jurisprudence
L. A. M. KRAUSE, M.D.	-----	Associate Professor of Medicine
M. G. GICHNER, M.D.	-----	Associate in Medicine
H. R. PETERS, M.D.	-----	Assistant in Medicine

During the third year the student is thoroughly drilled in the technique of the usual clinical laboratory work, so that he is able to perform all routine examination which may be called for during his fourth year, in connection with the work in the wards and dispensary.

The practical work is supplemented by a series of didactic lectures and demonstrations in which the entire teaching staff of the department takes an active part. The microscopical and chemical study of blood, exudates and transudates, gastric juice, spinal fluid, feces and urine are successively taken up, and special attention directed to the clinical significance of the findings.

Clinical parasitology from the standpoint of the infecting agent and the carrier is given careful consideration.

The entire course is thoroughly practical. Each student is provided with a microscope, blood counters and hemoglobinometer for his exclusive use, and every two students with a special laboratory outfit for all routine purposes.

During the fourth year the student applies what he has learned during the preceding year in the laboratories of the various affiliated hospitals. He is also supplied with a laboratory outfit which is sufficiently complete to enable him to work independently of the general equipment. Special instructors are available during certain hours to give necessary assistance and advice.

GASTRO-ENTEROLOGY

JULIUS FRIEDENWALD, A.M., M.D.	Professor of Gastro-Enterology
T. FRED LEITZ, M.D.	Clinical Professor of Gastro-Enterology
J. HARRY ULLRICH, M.D.	Assistant Professor of Gastro-Enterology
THEODORE H. MORRISON, M.D.	Assistant Professor of Gastro-Enterology
MAURICE FELDMAN, M.D.	Associate in Gastro-Enterology
JOSEPH SINDLER, M.D.	Instructor in Gastro-Enterology
Z. MORGAN, M.D.	Instructor in Gastro-Enterology
M. S. KOPPELMAN, M.D.	Assistant in Gastro-Enterology
N. J. DAVIDOV, M.D.	Assistant in Gastro-Enterology
ALBERT EISENBERG, M.D.	Assistant in Gastro-Enterogloy
PAUL F. WIEST, M.D.	Assistant in Gastro-Enterology
I. S. ZINBERG, M.D.	Assistant in Gastro-Enterology
W. E. GREMPLE, M.D.	Assistant in Gastro-Enterology

FOURTH YEAR. Clinic recitations and demonstrations to the class for one hour a week throughout the session. Dispensary sintruction to small groups throughout the entire session. Practical instruction in the differential and clinical diagnosis and demonstrations of the newer methods of diagnosis in gastro-intestinal affections.

PSYCHIATRY.

R. M. CHAPMAN, M.D.	Professor of Psychiatry
PAUL E. EWERHARDT, M.D.	Associate in Psychiatry
HARRY GOLDSMITH, M.D.	Instructor in Psychiatry
H. S. SULLIVAN, M.D.	Instructor in Psychiatry
H. M. PFEIFFER, M.D.	Assistant in Psychiatry

THIRD YEAR. In the third year the student attends fifteen clinical lectures and five clinics which are designed to be introductory to the more intensive work in psychiatry in the fourth year.

FOURTH YEAR. The class is divided into sections for clinical conferences on selected groups of cases. Each student works for a short period as assistant in the Mental Hygiene Clinic and thus gains practical experience of the problems of history taking, examination, and the care of psychiatric patients.

PEDIATRICS.

JOHN RUHRAH, M.D.	Professor of Pediatrics
CHARLES L. SUMMERS, M.D.	Professor of Pediatrics
EDGAR B. FRIEDENWALD, M.D.	Clinical Professor of Pediatrics
C. LORING JOSLIN, M.D.	Assistant Professor in Pediatrics
W. H. INGRAM, M.D.	Associate in Pediatrics
H. H. WARNER, M.D.	Associate in Pediatrics
W. J. TODD, M.D.	Instructor in Pediatrics
JOHN H. TRABAND, M.D.	Instructor in Pediatrics
WILLIAM F. GEYER, M.D.	Instructor in Pediatrics
I. J. FEINGLOS, M.D.	Instructor in Pediatrics
BERNARD J. FERRY, M.D.	Assistant in Pediatrics
CHARLES GOLDSBOROUGH, M.D.	Assistant in Pediatrics
GEORGE E. WELLS, M.D.	Assistant in Pediatrics
E. C. REITZEL, M.D.	Assistant in Pediatrics
F. STRATNER OREM, M.D.	Assistant in Pediatrics
CLARENCE E. MACKE, M.D.	Assistant in Pediatrics
H. WHITNEY WHEATON, M.D.	Assistant in Pediatrics
ROBERT S. KIRK, M.D.	Assistant in Pediatrics
H. J. DORF, M.D.	Assistant in Pediatrics
D. H. LAWLER, M.D.	Assistant in Pediatrics
H. R. LICKLE, M.D.	Assistant in Pediatrics
F. B. SMITH, M.D.	Assistant in Pediatrics
G. A. KNIPP, M.D.	Assistant in Pediatrics
W. L. BRENT, M.D.	Assistant in Pediatrics
J. J. MCGARRELL, M.D.	Assistant in Pediatrics

THIRD YEAR. Instruction during the third year consists of one lecture each week in which infant feeding and the most important diseases of infancy and childhood are especially emphasized. Drs. Ruhrah and Summers.

FOURTH YEAR. During this year a weekly clinical lecture is given where the character of disease is fully demonstrated and the students are afforded an opportunity for personal examination of all cases. In addition ward classes are held weekly where bedside instruction is given. A section of the class also works daily at the Babies' and Children's Clinic. This clinic, which is under the direction of Dr. Summers, has a yearly attendance of more than fifteen thousand, and offers an excellent opportunity for study and observation of a wide variety of cases under competent instructors.

Instruction is also given in the Children's Dispensary at the Mercy Hospital.

NEUROLOGY.

IRVING J. SPEAR, M.D.	.....	Professor of Neurology
ANDREW C. GILLIS, A.M., M.D.	.....	Professor of Neurology
G. M. SETTLE, A.B., M.D.	.....	Associate Professor of Neurology
BENJAMIN PUSHKIN, M.D.	.....	Associate in Neurology
MILFORD LEVY, M.D.	.....	Instructor in Neurology
J. A. SKLADOWSKY, M.D.	.....	Assistant in Neurology

THIRD YEAR. Lectures and recitations two hours each week to entire class throughout one semester. This course comprises the study of the anatomy and physiology of the nervous system, the method of neurological examination, and relationship of signs and symptoms to pathological conditions. The material at University and Mercy Hospitals is available.

Clinical Conference, one hour each week to the entire class. This subject is taught at the University and Mercy Hospitals. All cases presented at these clinics are carefully examined; complete written records are made by the students who demonstrate the cases before the class. These cases are usually assigned one or two weeks before they are presented, and each student in the class must prepare one or more cases during the year.

Ward Class Instruction. In small sections at the University and Mercy Hospitals. In these classes the students come in close personal contact with the cases in the wards under the supervision of the instructor.

Dispensary Instruction. Small sections are instructed in the dispensaries of the University and Mercy Hospitals four afternoons each week. In this way students are brought into contact with nervous diseases in their earlier as well as later manifestations.

HYGIENE AND PREVENTIVE MEDICINE.

C. HAMPSON JONES, M.D., C.M. Professor of Hygiene and Public Health
BIRCKHEAD MCGOWAN, M.D. Instructor in Hygiene and Public Health
J. F. HOGAN, M.D. Instructor in Hygiene and Public Health

THIRD YEAR. Two lectures a week throughout the session. The lectures will encompass the fundamental subjects: Air, Water, Soil, Food, Disposal of Wastes, Communicable Diseases, State and Federal Public Health Laws, and Industrial Diseases.

MEDICAL JURISPRUDENCE.

H. J. MALDEIS, M.D. Associate Professor of Medical Jurisprudence
Baltimore City Post Mortem Physician

FOURTH YEAR. One hour each week for one semester.

Inasmuch as Medical Jurisprudence teaches the application of every branch of medical knowledge to the needs of the law, civil or criminal, this course embraces the following:—Proceedings in criminal and civil prosecution; medical evidence and testimony; identity in its general relations; sexual abnormalities; personal identity; impotence and sterility; rape; criminal abortions; signs of death; wounds in their medico-legal relations; death, natural and homicidal; malpractice; insanity and medico-legal autopsies.

DEPARTMENT OF SURGERY.

ARTHUR M. SHIPLEY, Sc.D., M.D.	Professor of Surgery
ARCHIBALD C. HARRISON, M. D.	Professor of Surgery
ALEXIUS MCGLANNAN, A.M., M.D.	Professor of Surgery
JOSEPH H. BRANHAM, M.D.	Professor of Clinical Surgery
NATHAN WINSLOW, A.M., M.D.	Clinical Professor of Surgery
PAGE EDMUNDS, M.D.	Clinical Professor of Industrial Surgery
WALTER D. WISE, M.D.	Clinical Professor of Surgery
JOSEPH W. HOLLAND, M.D.	Clinical Professor of Surgery
J. C. LUMPKIN, M.D.	Clinical Professor of Surgery
H. C. BLAKE, M.D.	Associate Professor of Clinical Surgery
FRANK S. LYNN, M.D.	Associate Professor of Surgery
ELLIOT H. HUTCHINS, A.M., M.D.	Associate Professor of Surgery
THOMAS R. CHAMBERS, A.M., M.D.	Associate Professor of Surgery
R. W. LOCHER, M.D.	Associate Professor of Operative and Clinical Surgery
E. H. HAYWARD, M.D.	Associate in Surgery
FRANK J. KIRBY, M.D.	Associate in Surgery
CHARLES REID EDWARDS, M.D.	Associate in Surgery
A. M. EVANS, M.D.	Associate in Surgery
F. L. JENNINGS, M.D.	Instructor in Surgery
H. M. FOSTER, M.D.	Instructor in Surgery
E. S. JOHNSON, M.D.	Instructor in Surgery
F. X. KEARNEY, M.D.	Instructor in Surgery
C. A. REIFSCHNEIDER, M.D.	Instructor in Surgery
CHARLES W. MAXSON, M.D.	Instructor in Surgery
MARTIN J. HANNA, M.D.	Instructor in Surgery
G. W. BOWDEN, M.D.	Assistant in Surgery
DWIGHT MOHR, M.D.	Assistant in Surgery
WM. R. GERAGHTY, M.D.	Assistant in Surgery
S. DEMARCO, M.D.	Assistant in Surgery
O. H. LLOYD, M.D.	Assistant in Surgery
CLYDE MARVEL, M.D.	Assistant in Surgery
EVERARD BRISCOE, M.D.	Assistant in Surgery
I. O. RIDGELY, M.D.	Assistant in Surgery
H. B. MCELWAIN, M.D.	Assistant in Surgery
C. F. HORINE, M.D.	Assistant in Surgery
D. J. PASSAGNO, M.D.	Assistant in Surgery
J. G. ONNEN, M.D.	Assistant in Surgery
J. M. HUNDLEY, JR., M.D.	Assistant in Surgery

The teaching is in the Anatomical Laboratory and the dispensaries, wards, clinical laboratories and operating rooms of the University and Mercy Hospitals, and in the wards and dead-house of the Municipal Hospitals at Bay View.

Instruction is given by means of lectures, recitations, dispensary work, bed-side instruction, ward classes, and clinics. The work begins in the second year, and continues throughout the third and fourth years.

Second Year.

Topographic and Surgical Anatomy. 10 hours a week for the first semester. The course is designed to bridge the gap between anatomy in the abstract, and clinical anatomy as applied to the study and practice of medicine and surgery.

The teaching is done in the anatomical laboratory, and students are required to demonstrate all points, outlines, and regions on the cadaver. Underlying regions are dissected when necessary to bring out outlines and relations of structures. Didactic lectures two hours weekly, augmented by demonstrations with specimens, charts, and cross-sections. Dr. Holland, assisted by Drs. Herbert M. Foster, J. M. Hundley, Jr., Martin J. Hanna, and Leo Brady.

Surgical Technique. The course includes history taking, first aid treatment, demonstration of use of tourniquet and other emergency appliances and surgical dressings, bandages, plaster, adhesive plaster, suture material, solutions; their preparation and use.

It includes also inflammation and suppuration, ulcers, gangrene, fistulae, sinuses, non-operative-therapeutics, asepsis and antisepsis, the study of circulatory and respiratory failure, preparation of patients, dummy operations and written description of operation, splints, bed frames, bone plates, grafts and local anaesthesia.

Lectures and conferences two hours a week for one semester. Dr. Edwards.

Third Year.

General and Regional Surgery. Principles of surgery and general surgery, three hours a week throughout the year to the entire class, lectures, recitations and clinics. Dr. Shipley.

The class is divided into groups and receives instruction in history-taking, gross pathology, and surgical diagnosis—at the bedside and in the deadhouse of the Municipal Hospitals at Bay View. Drs. Shipley, Lynn and Reifschneider.

Operative Surgery. Instruction is given in operative surgery upon the cadaver and on dogs. The class is divided into sections, and each section is given practical and individual work under the supervision of the instructors. Dr. Frank S. Lynn, assisted by Drs. Nathan Winslow, Locher, Hayward, E. S. Johnson, Edwards, Foster, Reifschneider, Geraghty, Demarco, Kearney, Briscoe, Horine, Pessagno and Onnen.

Fractures and Dislocations. Twenty-four hours to the entire class. This course consists of instruction in the various forms of fractures and dislocations and their treatment, and serves as a preparatory course for clinical work. Dr. Wise.

Surgical Dispensary. Under supervision, the student takes the history, makes the physical examinations, attempts the diagnosis, and, as far as possible, carries out the treatment of the ambulatory surgical cases in the University and in the Mercy Hospitals. Mercy Hospital—Drs. Dwight Mohr, Ridgley, Passagno, Briscoe and McElwain. University Hospital—Drs. Holland, Lynn, Nathan Winslow, Edwards, E. S. Johnson and Foster.

Fourth Year.

Clinics. A weekly clinic will be given at the Mercy and at the University Hospitals to one-half the class throughout the year. As far as possible this is a diagnostic clinic. Mercy Hospital—Drs. Harrison and McGlannan. University Hospital—Dr. Shipley.

Surgical Pathology. A weekly exercise of one hour at Mercy Hospital for one semester, at which specimens from the operating-room and museum are studied in the gross and microscopically, in relation with the case history. Dr. McGlannan.

Industrial Surgery. Operative and post-operative treatment of accident cases, with instructions as to the relationship between the state, the employee, the employer, and the physician's duty to each. One hour a week to sections of the class throughout the year. Dr. Edmunds.

Clinical Clerkship. The personal study of assigned hospital patients, under supervision of the staffs of University and of Mercy Hospitals, history taking, and physical examination of patients, laboratory examinations, attendance at operations and observation of post-operative treatment.

Ward Classes. Ward class instruction in small groups will consist of ward rounds, surgical diagnosis, treatment and the after care of operative cases. Mercy Hospital—Drs. Harrison, McGlannan, Wise, Elliot Hutchins, Evans and Chambers. University—Drs. Shipley, Holland, Edmunds, Lynn and Edwards.

ANAESTHESIA.

Second Year.

Lectures on history of anaesthesia: Ancient and Modern. General physiology of anaesthesia. Special physiology of each anaesthetic agent. Different methods for producing general anaesthesia, with a detailed description of each. The selection of the anaesthetic and method best suited for its administration in particular cases. Difficulties and accidents during and following anaesthesia, their causes, prevention and control. Different methods of resuscitation. Blood pressure: Its significance and bearing on selection of the anaesthetic and use as a guide during anaesthesia.

One hour weekly for one semester. Drs. S. Griffith Davis and W. G. Queen.

Fourth Year.

During the clinics and operations before small groups, each student will be required to observe the administration of anaesthetics and to keep a chart recording blood pressure, pulse and respiration under the direction of an instructor.

DERMATOLOGY.

T. CASPER GILCHRIST, M.R.C.S., L.S.A., M.D.	.....	Professor of Dermatology
MELVIN ROSENTHAL, M.D.	.....	Associate Professor of Dermatology
JOHN R. ABERCROMBIE, A.B., M.D.	.....	Associate in Dermatology
HARRY M. ROBINSON, M.D.	.....	Associate in Dermatology
JOSEPH E. GATELY, M.D.	.....	Instructor in Dermatology
JOHN A. BUCHNESS, M.D.	.....	Assistant in Dermatology

Clinical conferences one hour each week to entire class. This course will consist of demonstrations of the common diseases of the skin. Dr. Gilchrist.

Dispensary instruction, University Hospital, Mondays, Wednesdays and Fridays in the diagnosis and treatment of the common skin diseases. Drs. Abercrombie, Robinson and Gately. Dispensary instruction, Mercy Hospital. Dr. Rosenthal.

ORTHOPAEDIC SURGERY.

R. TUNSTALL TAYLOR, A.B., M.D.	.....	Professor of Orthopaedic Surgery
ALBERTUS COTTON, A. M., M.D.	.....	Professor of Orthopaedic Surgery
COMPTON RIELY, M.D.	.....	Clinical Professor of Orthopaedic Surgery
W. H. DANIELS, M.D.	.....	Associate in Orthopaedic Surgery
J. ALBERT KEY, B.A., M.D.	.....	Instructor in Orthopaedic Surgery
H. L. WHEELER, M.D.	.....	Instructor in Orthopaedic Surgery
H. L. ROGERS, M.D.	.....	Assistant in Orthopaedic Surgery

In this course didactic, clinical, bed-side and out-patient instruction will be given. This instruction is provided in the University Hospital Amphitheater and in the Dispensary, Mercy Hospital and Dispensary and Kernan Hospital and Industrial School for Crippled Children at "Radnor Park," and in the Dispensary of same at 620 West Lombard Street.

Lectures, clinics and quizzes will be held at each of the hospitals once a week. In addition, a weekly bedside clinic will be held for small sections of the class at "Radnor Park."

The course will cover instruction in special methods and instruments required in this surgical specialty, including X-Ray technique; Wolff's law; tuberculosis of bones and joints; deformities of the feet; non-tuberculous deformities of the feet and joints; the paralyses; the bursal, tendinous and muscular conditions producing orthopaedic affections; rickets; scurvy; osteomalacia; chondro-dystrophies; wry-neck and the use and application of orthopaedic apparatus.

ROENTGENOLOGY AND RADIOTHERAPY.

HENRY J. WALTON, M.D.....	Professor of Roentgenology
ALBERTUS COTTON, M.D.....	Professor of Roentgenology
JOHN EVANS, M.D.....	Associate Professor of Roentgenology
CHARLES REID EDWARDS, A.B., M.D.....	Associate in Radio Therapy
HOWARD E. ASHBURY, M.D.....	Associate in Roentgenology

Instruction is given in the history, physics, and practical application of Roentgen Rays and Radium. Especial effort is made to demonstrate the use of the Roentgen Ray in diagnosis by instruction in both fluoroscopy and plate reading. The sections of the fourth year class receive two hours instruction each week.

The student is also taught the practical, application of Radium and Roentgen rays as therapeutic agents. In the X-ray laboratory and in the hospital wards students are shown the use of these agents in the treatment of disease.

DISEASES OF THE THROAT AND NOSE.

EDWARD A. LOOPER, M.D.,	Clinical Professor of Diseases of the Throat and Nose
FRANK DYER SANGER, M.D....	Professor of Diseases of the Throat and Nose
GEORGE W. MITCHELL, M.D.,	

Associate Professor of Diseases of the Throat and Nose

W. F. ZINN, M.D.....	Associate Professor of Diseases of Throat and Nose
GEORGE MURGATROYD, M.D....	Associate in Diseases of the Throat and Nose
FRANK B. ANDERSON, M.D.....	Associate in Diseases of the Throat and Nose
R. F. MCKENZIE, M.D.....	Instructor in Diseases of the Throat and Nose
R. J. KEMP, M.D.....	Assistant in Diseases of the Throat and Nose

THIRD YEAR. Instruction to entire class is given in the common diseases of the nose and throat, attention being especially directed to infections of the accessory sinuses, the importance of focal infections in the etiology of general diseases, modern methods of diagnosis. Lectures are illustrated by lantern slides. Dr. Looper.

FOURTH YEAR. Dispensary Instruction daily to small sections at the University and the Mercy Hospitals. The student is given opportunity to study, diagnose and treat practical cases under an Instructor. Ward classes and clinical demonstrations are given one and one-half hours weekly throughout the session in the University and the Mercy Hospitals.

GENITO-URINARY DISEASES.

ANTON G. RYTINA, A.B., M.D.....	Professor of Genito-Urinary Diseases
HARRIS GOLDMAN, M.D.....	Associate in Genito-Urinary Diseases
W. H. TOULSON, M.D.....	Associate in Genito-Urinary Diseases
A. J. GILLIS, M.D.....	Instructor in Genito-Urinary Diseases
AUSTIN H. WOOD, M.D.....	Instructor in Genito-Urinary Diseases
L. K. FARGO, M.D.....	Instructor in Genito-Urinary Diseases
H. C. KNAPP, M.D.....	Assistant in Genito-Urinary Diseases
H. T. COLLENBERG, M.D.....	Assistant in Genito-Urinary Diseases
J. H. COLLINSON, M.D.....	Assistant in Genito-Urinary Diseases
MILTON C. LANG, M.D.....	Assistant in Genito-Urinary Diseases

Instruction in Genito-Urinary Surgery is given to members of the Junior and the Senior classes from both a practical and didactic standpoint. The course includes everything pertaining to modern urology, such as urethroscopy, cystoscopy, ureter catheterization, renal functional tests, urography, urine cultures, etc. The teaching consists of clinics in the amphitheater, ward rounds, and attendance by members of the Senior class upon out patients of the dispensary. The dispensary classes are carried on both at the Mercy and the University hospital dispensaries. In the latter institution, the Maryland State Department of Health conducts a venereal disease clinic, in which 23,000 visits were paid last year. Every variety of venereal disease is here encountered, and this rich wealth of material is available for teaching purposes. In addition to this, a cystoscopic clinic is conducted in another part of the dispensary, where the students are given practical instruction in the modern, urological, diagnostic methods.

DISEASES OF THE COLON AND RECTUM.

G. MILTON LINTHICUM, A.M., M.D.,

Professor of Diseases of Rectum and Colon

CHARLES F. BLAKE, M.D. Professor of Diseases of Rectum and Colon

J. DAWSON REEDER, M.D.,

Associate Professor of Diseases of Rectum and Colon

L. J. ROSENTHAL, M.D. Associate Professor of Diseases of Rectum and Colon

FOURTH YEAR. This course is for instruction in diseases of the Colon, Sigmoid Flexure, Rectum and Anus, and will cover the essential features of the anatomy and physiology of the large intestine, as well as the various diseases to which it is subject. The importance of diseased conditions and malpositions of the intestines, in relation to systemic disturbances, will be emphasized by demonstrations.

In small groups, the students will be taken into the wards and dispensaries of the University and the Mercy Hospitals, where different phases of the various diseases will be taught by direct observation and examination. The use of the proctoscope and sigmoidoscope in examination of the rectum and sigmoid will be made familiar to each student.

A course in Proctoscopy may be given in the City Hospitals at Bay View, where abundance of material is always obtainable.

DEPARTMENT OF OBSTETRICS.

J. M. H. ROWLAND, M.D. Professor of Obstetrics

GEORGE W. DOBBIN, M.D. Professor of Obstetrics

BERNARD PURCELL MUSE, M.D. Professor of Clinical Obstetrics

CHARLES E. BRACK, M.D. Clinical Professor of Obstetrics

L. H. DOUGLASS, M.D. Associate Professor of Obstetrics

J. McF. BERGLAND Associate Professor of Obstetrics

H. S. GORSUCH, M.D. Associate in Obstetrics

E. P. SMITH, M.D. Associate in Obstetrics

EMIL NOVAK M.D. Associate in Obstetrics

J. G. M. REESE, M.D. Instructor in Obstetrics

DUDLEY PLEASANTS BOWE, M.D. Instructor in Obstetrics

STANLEY W. MATTHEWS, M.D. Instructor in Obstetrics

J. G. MURRAY, JR., A.B., M.D. Instructor in Obstetrics

F. H. MACHIN, M.D. Assistant in Obstetric

SUSANNE R. PARSONS, A.M., M.D., Ph.D. Assistant in Obstetrics

MAURICE LAZENBY, M.D. Assistant in Obstetrics

J. J. ERWIN, M.D. Assistant in Obstetrics

THIRD YEAR. Three lectures and recitations each week by Drs. Dobbin, Bergland and Novak to entire class. Manikin Work, Drs. Brack, Smith and Erwin to sections of class at Mercy Hospital, and Drs. Douglass, Reese, Matthews, Bowe, Machin, Gorsuch, Parsons and Rowland at University Hospital.

FOURTH YEAR. Clinical Conference. One hour each week for one semester to University Hospital section. Drs. Rowland, Douglass, Murray and Lazenby.

Ward Classes. Six hours per week for five weeks to sections of class at University Hospital. Drs. Reese, Gorsuch, Parsons, Machin and Rowland.

DEPARTMENT OF GYNECOLOGY.

WILLIAM S. GARDNER, M.D.	Professor of Gynecology
J. MASON HUNDLEY, M.D.	Professor of Clinical Gynecology
W. B. PERRY, M.D.	Professor of Clinical Gynecology
HUGH BRENT, M.D.	Associate Professor of Gynecology
ABRAHAM SAMUELS, M.D.	Associate Professor of Gynecology
GEO. A. STRAUSS, M.D.	Associate in Gynecology
R. G. WILLSE, M.D.	Associate in Gynecology
T. K. GALVIN, M.D.	Assistant in Gynecology
J. M. HUNDLEY, JR., M.D.	Assistant in Gynecology
LEO BRADY, M.D.	Assistant in Gynecology

THIRD YEAR. *Didactic Work.* A course of thirty lectures and recitations.

Clinical Work. Six hours weekly for one trimester. In this course the student writes the clinical history of each patient in the ward, makes a general physical examination, including the blood and urine, before the patient is brought before the class. One student under supervision gives the anaesthetic, a pelvic examination is made by six students, and any operation required is then done before a section of the class small enough to see clearly what is being done and how it is done. On a subsequent day the whole group examine microscopically sections prepared from material removed from patients that have been before them.

DEPARTMENT OF OPHTHALMOLOGY AND OTOTOLOGY.

HARRY FRIEDENWALD, A.B., M.D.	Professor of Ophthalmology and Otology
J. W. DOWNEY, M.D.	Clinical Professor of Otology
CLYDE A. CLAPP, M.D.	Associate Professor of Ophthalmology
M. RANDOLPH KAHN, M.D.	Associate Professor of Ophthalmology
H. K. FLECK, M.D.	Associate in Ophthalmology
JOSEPH I. KEMLER, M.D.	Associate in Ophthalmology
FRANK PACIENZA, M.D.	Assistant in Ophthalmology

THIRD YEAR. *Course in Diseases of the Eye.* October 2nd to January 18th. Dr. Harry Friedenwald.

Course in Diseases of the Ear, October 2nd to January 18th. Dr. Downey.

Practical Course in Ophthalmoscopy, once weekly, in sections. Dr. Kemler.

FOURTH YEAR. *Clinics in Diseases of the Eye and Ear,* weekly. Drs. Harry Friedenwald and Downey.

Ward Studies of ocular and oral lesions associated with general medical diseases, once weekly in sections.. Drs. Clapp, Downey and Fleck.

Dispensary Instruction, daily in small sections. Drs. Kahn, Fleck and Downey.

The courses in Ophthalmology and Otology are designed to familiarize the students with the common diseases of the eye and ear, their recognition and treatment, with a view to meet the needs of the general practitioner. Special emphasis is laid upon the relation between diseases of the eye and the ear and systemic diseases and diseases of other organs.

FIRST YEAR SCHEDULE—First Semester

Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
A. M. 9 to 10 10 to 11	HISTOLOGY AND EMBRYOLOGY LABORATORY P. & S. 32					Histology P. & S. 34 Embryology P. & S. 34	Dissecting A. H. and Laboratory
11 to 12.00	Transfer	Histology P. & S. 34	Transfer	Histology and Embryology Laboratory P. & S. 32	Transfer		
P. M. 12.00 to 12.30 12.30 to 1.00	Physiology A. H.	Lunch and Transfer	Physiology A. H.	Bacteriology P. & S. 34	Physiology A. H.		
1 to 2	Lunch		Lunch	Lunch and P. & S. 34	Lunch		
2 to 5	ANATOMY AND DISSECTING A. H. and Laboratory						

Classes in Anatomy, Dissecting and Physiology at Lombard and Greene Streets; all other classes at Calvert and Saratoga Streets.

A. H.—Anatomical Hall—N. E. Cor. Lombard and Greene Streets.

Anatomical Laboratory—Third Floor, Gray Laboratory—Lombard and Greene Streets.

P. & S.—N. W. Cor. Calvert and Saratoga Streets. Rooms indicated on Second Floor.

FIRST YEAR SCHEDULE—Second Semester

Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
A. M. 8.30 to 9.30 9.30 to 10.30	HISTOLOGY AND EMBRYOLOGY LABORATORY P. & S. 32				Histology P. & S. 34 Embryology P. & S. 34	Dissecting A. H. and Laboratory
10.30 11.30	Physiology P. & S. 34	Embryology P. & S. 34	Physiology P. & S. 34	Bacteriology P. & S. 34	Physiology P. & S. 34	
11.30 to 12.00	LUNCH					
P. M. 12 to 2	BACTERIOLOGY LABORATORY P. & S. 32					
2 to 2.30	TRANSFER					
2.30 to 5.30	ANATOMY AND DISSECTING A. H. and Laboratory					

Classes in Anatomy and Dissecting at Lombard and Greene Streets; all other classes at Calvert and Saratoga Streets.

A. H.—Anatomical Hall—N. E. Cor. Lombard and Greene Streets.

Anatomical Laboratory—Third Floor, Gray Laboratory—Lombard and Greene Streets.

P. & S.—N. W. Cor. Calvert and Saratoga Streets. Rooms indicated on Second Floor.

SECOND YEAR SCHEDULE—First Semester

Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
A. M. 9 to 10	Physiology A. H.	Laboratory Physiology Section A Biological Chemistry Section B	Physiology A. H.	Laboratory Physiology Section B Biological Chemistry Section A	Pharmacology A. H.	Physiology L. B. 1
10 to 11	Biological Chemistry A. H.		Biological Chemistry A. H.		Biological Chemistry A. H.	Pharmacology A. H.
11 to 12.00	Pathology A. H.		Pharmacology A. H.		Pathology A. H.	Immunology A. H.
12.00 to 12.30	Lunch	LUNCH AND TRANSFER PERIOD				12-1 Pathology A. H.
P. M. 12.30 2.30	Laboratory Pharmacology Section A or B	Laboratory Immunology and Serology P. & S. 32		Medicine P. & S. 34	Immunology P. & S. 34	
2.30 3.30				Surgery P. & S. 34	Surgery P. & S. 34	1-1.30 Lunch
3.30 to 4.30	Neural Anatomy	Surgical Anatomy	Surgical Anatomy	Surgical Anatomy	Surgical Anatomy	1.30-4.30 Laboratory Pharmacology Section B or A
4.30 to 5.30	P. & S. 33 and Laboratory	P. & S. 33 and Laboratory	P. & S. 33 and Laboratory	P. & S. 33 and Laboratory	P. & S. 33 and Laboratory	

Classes on Tuesdays, Wednesdays, Thursdays and Fridays from 12.30 to 5.30, at Calvert and Saratoga Streets; all other classes at Lombard and Greene Streets.

A. H.—Anatomical Hall—N. E. Cor. Lombard and Greene Streets.

L. B. 1—Law Building—First Floor, Lombard and Greene Streets.

P. & S.—N. W. Cor. Calvert and Saratoga Streets. Rooms indicated on Second Floor.

SECOND YEAR SCHEDULE—Second Semester

Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
A. M. 8.30 to 9.30	Physiology A. H.	Laboratory Physiology Section A Biological Chemistry Section B	Physiology A. H.	Laboratory Physiology Section B Biological Chemistry Section A	Pharmacology A. H.	Physiology L. B. 1	
9.30 to 10.30	Biological Chemistry A. H.		Biological Chemistry A. H.		Biological Chemistry Section A	Biological Chemistry A. H.	Pharmacology A. H.
10.30 to 11.30	Pathology A. H.		Pharmacology A. H.		Pathology A. H.	11 to 12 Pathology A. H.	
11.30 to 12.00	LUNCH					Medical Clinic Amp.	
P. M. 12 to 1	PATHOLOGY		LABORATORY				
1 to 2	Laboratory Pharmacology Section A Biological Chemistry Section B	Laboratory Pharmacology Section A Physiology Section B	Physical Diagnosis	Laboratory Pharmacology Section B Physiology Section A	Laboratory Pharmacology Section B Biological Chemistry Section A		
2 to 3			Univ. Hosp. Disp.				
3 to 4							
4 to 5							

All classes at Lombard and Greene Streets.

A. H.—Anatomical Hall—N. E. Cor. Lombard and Greene Streets.

L. B.—Law Building—First Floor, Lombard and Greene Streets.

Amp.—Amphitheatre—University Hospital, S. W. Cor. Lombard and Greene Streets.

THIRD YEAR SCHEDULE

Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
A. M. 8.30 to 9.30	Therapeutics C. H.	Pathology C. H.	Medicine C. H.	Surgery C. H.	Pathology C. H.	Surgery C. H.
9.30 to 10.30	Obstetrics C. H.	Surgery C. H.	Obstetrics C. H.	Medicine C. H.	Medicine C. H.	Therapeutics C. H.
10.30 to 1	Physical Diagnosis Operative Surgery Dispensary Lunch and Transfer	Physical Diagnosis Operative Surgery Dispensary Lunch and Transfer	Physical Diagnosis Operative Surgery Dispensary Lunch and Transfer	Physical Diagnosis Operative Surgery Dispensary Lunch and Transfer	Physical Diagnosis Operative Surgery Dispensary Lunch and Transfer	Physical Diagnosis Operative Surgery Dispensary Lunch
1 to 2	Medical Clinic Amp.	Surgery C. H.	Neurology P. & S. 33	Obstetrics P. & S. 23	Gynecology P. & S. 33	Transfer
2.15 to 4.15	Pathology Laboratory	Pathology Laboratory	2.30-4.30 Section A Clinical Medicine Surgery Gross Pathology at Bay View	Clinical Pathology Laboratory P. & S. 34, 32	Clinical Pathology Laboratory P. & S. 34, 32	2-4 Section B Clinical Medicine Surgery Gross Pathology at Bay View
4.15 to 5.15	Pediatrics A. H.	Eye and Ear C. H.	2.15-4.15 Section B Group Work Ophthalmos- copy Practical Obstetrics Univ. Hosp.	Preventive Medicine Legal Medicine Mental Hygiene P. & S. 34	Preventive Medicine P. & S. 34	

From 10.30 A. M. to 1.00 P. M. the class is divided into two sections, one section reporting at Calvert and Saratoga Streets, the other at Lombard and Greene Streets.

C. H.—Chemical Hall—N. E. Cor. Lombard and Greene Streets.

A. H.—Anatomical Hall—N. E. Cor. Lombard and Greene Streets.

Amp.—Amphitheatre—University Hospital, S. W. Cor. Lombard and Greene Streets.

P. & S.—N. W. Cor. Calvert and Saratoga Streets. Rooms indicated on Second Floor.

* At the beginning of the second semester Section "A" at Bay View on Saturdays, 2-4

P. M., and University Hospital on Wednesdays, 2.15-4.15 P. M.; Section "B" at Bay View on Wednesdays, 2.30-4.30 P. M.

FOURTH YEAR SCHEDULE

Hours	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
A. M. 8.30 to 11.00	Ward Classes Medicine Surgery Obstetrics	Ward Classes Medicine Surgery Gynecology	Ward Classes Medicine Surgery Obstetrics	Ward Classes Medicine Surgery Gynecology	Ward Classes Medicine Surgery Obstetrics	Ward Classes Medicine Surgery Gynecology
11.00 to 12.00	Orthopaedic Surgery Univ.Sec.Amp. P. & S. Sec. 51	Medical Clinic Univ.Sec.Amp. Surgical Pathology P. & S. Sec. 40	Clinical Pathological Conference Univ.Sec. C. H. P. & S. Sec. 33	Surgical Clinic Univ.Sec.Amp. P. & S. Sec. 51	Medical Clinic Univ.Sec.Amp. P. & S. Sec. 33	Pediatrics Clinic Univ.Sec.Amp. P. & S. Sec. 33
P. M. 12 to 2	Dispensary Lunch and Transfer	Dispensary and Lunch	Dispensary Lunch and Transfer	Dispensary and Lunch	Dispensary Lunch and Transfer	Dispensary
2.15 to 3.15	Dermatology Clinic (Full Class at Univ. Hosp.) Amp.	Neurology Clinic Univ.Sec.Amp. P. & S. Sec. 33	Eye and Ear Clinic (Full Class at Univ. Hosp.) Amp.	Genito-Urinary Clinic P. & S. Sec. 51 Obstetrical Clinic Univ. Hosp. Amp.	Gastro-Enter- ology Clinic (Full Class at Univ. Hosp.) Amp.	
3.30 to 5.00	Ward Classes Medicine Urology Eye and Ear	Ward Classes Therapeutics Proctology Radiotherapy	Ward Classes Medicine Roentgenology Preventive Medicine	Ward Classes Medicine Orthopaedic Surgery Physical Therapeutics	Ward Classes Neurology Nose & Throat Psychiatry	

The Senior Class is divided into two sections, which report, one at Lombard and Greene Streets, the other at Calvert and Saratoga Streets, for one semester each, then rotate.

Each section of the class is divided into three groups—Medical, Surgical, and Special. These groups will rotate on the following dates:

FIRST SEMESTER

- 1st period, Oct 1 to Nov. 3
- 2nd period, Nov 5 to Dec. 8
- 3rd period, Dec. 10 to Jan. 26

SECOND SEMESTER

- 1st period, Jan. 28 to Mch. 1
- 2nd period, Mch. 3 to Apr. 12
- 3rd period, Apr. 14 to May 17

C. H.—Chemical Hall—N. E. Cor. Lombard and Greene Streets.
 Amp.—Amphitheatre—University Hospital.
 P. & S., 33, 34—Second Floor, Calvert and Saratoga Streets.
 P. & S., 40, 51—Fourth Floor, Calvert and Saratoga Streets.

REQUIREMENTS FOR MATRICULATION

Admission to the course in medicine is by a completed Medical Student Certificate issued by the Registrar of the University of Maryland. This certificate is obtained from the Registrar on the basis of satisfactory educational credentials, and is essential for admission to any class.

The requirements for the issuance of the Medical Student Certificate are:

(a) The completion of a standard four-year high school course or the equivalent, and in addition, at least

(b) Two years or sixty semester hours of college credits, including chemistry, biology, physics, and English.

Women are admitted to the School of Medicine of this University.

(A) HIGH SCHOOL REQUIREMENTS.

Graduation from an accredited high or preparatory school after pursuing a four-year course based upon an eight-year elementary course or its full equivalent as demonstrated by entrance examinations.

At least fifteen units must be offered.†

SCHEDULE OF SUBJECTS REQUIRED OR ACCEPTED FOR ENTRANCE TO THE PRE-MEDICAL COLLEGE COURSE

Subjects	Units*	Required
GROUP I, ENGLISH—		
Literature and Composition.....	3-4	3
GROUP II FOREIGN LANGUAGES—		
Latin.....	1-4	2†
Greek.....	1-3	
French or German.....	1-4	
Other foreign languages.....	1-4	

GROUP III, MATHEMATICS—

Elementary algebra	1	1
Advanced algebra	$\frac{1}{2}$ -1	--
Plane geometry	1	1
Solid geometry	$\frac{1}{2}$	--
Trigonometry	$\frac{1}{2}$	--

GROUP IV, HISTORY—

Ancient history	$\frac{1}{2}$ -1	1
Medieval and modern history	$\frac{1}{2}$ -1	
English history	$\frac{1}{2}$ -1	
American history	$\frac{1}{2}$ -1	
Civil government	$\frac{1}{2}$ -1	

GROUP V, SCIENCE—

Botany	$\frac{1}{2}$ -1	1
Zoology	$\frac{1}{2}$ -1	
Chemistry	1	
Physics	1	
Physiography	$\frac{1}{2}$ -1	
Physiology	$\frac{1}{2}$ -1	
Astronomy	$\frac{1}{2}$	
Geology	$\frac{1}{2}$ -1	

GROUP VI, MISCELLANEOUS—

Agriculture	1-2	--
Bookkeeping	$\frac{1}{2}$ -1	--
Business law	$\frac{1}{2}$	--
Commercial geography	$\frac{1}{2}$ -1	--
Domestic science	1-2	--
Drawing, freehand and mechanical	$\frac{1}{2}$ -2	--
Economics and economic history	$\frac{1}{2}$ -1	--
Manual training	1-2	--
Music: Appreciation or harmony	1-2	--

*A unit is the credit value of at least thirty-six weeks' work of four or five recitation periods per week, each recitation period to be not less than forty minutes. In other words a unit represents a year's study in any subject in a secondary school constituting approximately a quarter of a full year's work. A satisfactory year's work in any subject cannot be accomplished under ordinary circumstances in less than 120 sixty-minute hours, or their equivalent.

†Both of the required units of foreign language must be of the same language, but the two units may be presented in any one of the languages specified.

‡Of the fifteen units of high school work, nine units are required, as indicated in the foregoing schedule; the remainder may be made up from any of the other subjects in the schedule, provided that at least eleven units must be offered in Groups I-V.

(B) DETAILS OF THE COLLEGE REQUIREMENT.

a. The preliminary college course shall extend through two college sessions of at least thirty-two weeks each of actual instruction, including final examinations.

b. In excellence of teaching and in content, the work of this preliminary college course shall be equal to the work done in the freshman and sophomore years in standard colleges and universities.

c. This preliminary college course shall include courses in physics, chemistry, biology, and English, each course to embrace at least six, eight or twelve hours of work in each subject, as shown in the schedule following.

**SCHEDULE OF SUBJECTS OF THE TWO-YEAR
PRE-MEDICAL COLLEGE COURSE.**

Sixty Semester Hours Required

REQUIRED COURSES:	<i>Semester Hours</i>
Chemistry (a)-----	12
Physics (b)-----	8
Biology (c)-----	8
English Composition and Literature (d)-----	6

COURSES STRONGLY URGED:

A modern foreign language.
Comparative vertebrate anatomy.
Psychology.
Social science.

A semester hour is the credit value of sixteen weeks' work consisting of one lecture or recitation period per week, each period to be of not less than fifty minutes' duration net, at least two hours of laboratory work to be considered as the equivalent of one lecture or recitation period.

(a) **CHEMISTRY.** Twelve semester hours required, of which at least eight semester hours must be in general inorganic chemistry, including four semester hours of laboratory work. In the interpretation of this rule, work in qualitative analysis may be counted as general inorganic chemistry. The remaining four semester hours required shall consist of work in organic chemistry.

(b) **PHYSICS.** Eight semester hours required, of which at least two must be laboratory work. This course presupposes a knowledge of plane trigonometry.

(c) **BIOLOGY.** Eight semester hours required, of which four must be laboratory work. This requirement may be satisfied by a course of eight semester hours in either general biology or zoology, or by courses of four semester hours each in zoology and botany, but not by botany alone.

(d) **ENGLISH COMPOSITION AND LITERATURE.** The usual introductory college course of six semester hours, or its equivalent, is required.

COMBINED COURSE IN ARTS AND MEDICINE.

The students who have completed the junior year in our School of Liberal Arts and who have made an approved choice of electives may, if they desire, do the entire work of the senior year in the medical school of the University. If they successfully complete the work of the first medical year they are graduated with their class with the degree of Bachelor of Arts.

By taking advantage of this privilege a man may complete the Undergraduate and Medical courses in seven years.

During three of these years, or until he has completed the work of the junior class, he is a resident student in the School of Liberal Arts at College Park, Maryland, and for four years he is a student in the School of Medicine in Baltimore.

At the end of the fourth year he receives the A. B. degree, and at the end of the seventh year the M. D. degree, but credit from the Medical School cannot be accepted in subjects for which credit has already been given in the School of Liberal Arts.

POST-GRADUATE STUDENTS.

Graduates in medicine desiring to take the work of the senior year without being candidates for the degree and, therefore, without examination, may receive a certificate of attendance on completing the full course satisfactorily.

The requirements for graduates in medicine admitted to the fourth year class as candidates for the degree of Doctor of Medicine are the same as those enforced against undergraduates admitted to advanced standing.

Summer Post-Graduate Courses—In the April number of the Bulletin detailed announcement will be made of the Post-graduate Summer Courses.

RULES.

1. All students are required to take the spring examinations unless excused by the Dean. No student will be permitted to advance from a lower to a higher class with conditions.

2. Should a student be required to repeat any year in the course he must pay regular fees.

3. A student failing in final examinations for graduation at the end of the fourth year will be required to repeat the entire course of the fourth year and to take examinations in such other branches as may be required, should he be again permitted to enter the school as a candidate for graduation.

4. The general fitness of a candidate for graduation will be taken into consideration by the Faculty as well as the results of his examination.

5. All first and second year students entering the School of Medicine of the University of Maryland are required to provide themselves with microscopes of a satisfactory type.

A standard microscope of either Bausch & Lomb, Leitz, Spencer Lens or Zeiss make, fitted with the following attachments, will fill the requirements:

Triple nose piece.	10 x and 5 x Oculars.
Wide aperture stage.	16mm. and 4mm. Objectives.
Quick screw condenser (Abbe).	1.9mm. 1.25 N.A. Oil Immersion Lens.

All the above rules, as well as the fees stated below, relate to the year ending June 6, 1925, only. The right is reserved to make changes in the curriculum, the requirements for graduation, the fees and in any of the regulations whenever the Faculty deem it expedient.

FEES.

Matriculation fee (paid once)	\$10.00
Tuition fee (each year) for residents of Maryland.....	250.00
Tuition fee (each year) for non-residents.....	300.00
Laboratory fee (each year).....	10.00
Special and re-examination fee.....	5.00
Graduation fee.....	10.00

No fees are returnable.

The above fees apply to all students who matriculate in this institution in any class for the session beginning October 1, 1924.

All students, after proper certification, are required to register at the Registrar's office. The last date of registration is September 29, 1924.

Matriculation, laboratory and tuition fees for the first semester shall be paid at the time of registration, and for the second semester on or before February 1, 1925.

Failure to meet these conditions will automatically debar the student from attendance on classes and other privileges of the University.

Students who fail to pay the tuition and other fees required on or before the last day of registration, for each term or semester, as stated in the catalogue, will be required to pay as an addition to the fees required the sum of Five (\$5.00) Dollars and if the payment so required shall not be paid before twenty (20) days from the beginning of said term or semester, the students name shall be stricken from the rolls.

PRIZES AND SCHOLARSHIPS

FACULTY PRIZE.

To stimulate study among the candidates for graduation, the Faculty offers a Gold Medal to the candidate who passes the best general examination. Certificates of Honor are awarded to the five candidates standing next highest.

DR. JOSE L. HIRSH MEMORIAL PRIZE.

A prize of \$50.00 is given each year by Mrs. Jose L. Hirsh as a memorial to the late Dr. Jose L. Hirsh, formerly Professor of Pathology in this School, to the student in the third year who has done the most satisfactory work in Pathology during his second and third years.

SCHOLARSHIPS.

The Dr. Samuel Leon Frank Scholarship.

(Value, \$125.00)

This scholarship was established by Mrs. Bertha Rayner Frank as a memorial to the late Dr. Samuel Leon Frank, an alumnus of this University.

It is awarded by the Trustees of the Endowment Fund of the University each year upon nomination by the Medical Council, "to a medical student of the University of Maryland, who, in the judgment of said Faculty, is of good character and in need of pecuniary assistance to continue his medical course."

This scholarship is awarded to a second, third or fourth year student, who has successfully completed one year's work in this school, and no student may hold such scholarship for more than two years.

The Charles M. Hitchcock Scholarships.

(Value, \$125.00 each)

Two scholarships were established from a bequest to the School of Medicine by the late Charles M. Hitchcock, M. D., an alumnus of the University.

These scholarships are awarded annually by the Trustees of the Endowment Fund of the University upon nomination by the Medical Council to students who have meritoriously completed the work of at least the first year of the course in medicine, and who present to the Faculty satisfactory evidence of a good moral character and of inability to continue the course without pecuniary assistance.

The Randolph Winslow Scholarship.

(Value, \$125.00)

This scholarship was established by Prof. Randolph Winslow, M.D., LL.D.

It is awarded annually by the Trustees of the Endowment Fund of the University, upon nomination by the Medical Council, to "a needy student of the Senior, Junior, or Sophomore Class of the Medical School."

"He must have maintained an average grade of 85% in all his work up to the time of awarding the scholarship.

"He must be a person of good character and must satisfy the Medical Council that he is worthy of and in need of assistance."

The Dr. Leo Karlinsky Scholarship.

(Value, \$200.00)

This scholarship was established by Mrs. Ray Mintz Karlinsky as a memorial to her husband, the late Dr. Leo Karlinsky, an alumnus of the University.

It is awarded annually by the Trustees of the Endowment Fund of the University, upon nomination by the Medical Council, to "a needy student of the Senior, Junior or Sophomore Class of the Medical School."

"He must have maintained an average grade of 85 per cent. in all his work up to the time of awarding the scholarship."

"He must be a person of good character and must satisfy the Medical council that he is worthy of and in need of assistance."

The University Scholarships.

Two Scholarships are awarded by the University. One to a student of the Department of Liberal Arts appointed by the President to be held for only one year; the other, which entitles the holder to exemption from payment of the tuition fee of the year, is

awarded annually by the Medical Council to a student of the Senior Class who presents to the Medical Council satisfactory evidence that he is of good moral character and is worthy of and in need of assistance to complete the course.

The St. John's Scholarship.

This scholarship is awarded annually by the Medical Council upon the nomination of the President of St. John's College.

It entitles the holder to exemption from the payment of the tuition fee of that year.

Frederica Gehrmann Scholarship.

This scholarship was established by the bequest of the late Mrs. Frederica Gehrmann and entitles the holder to exemption from payment of tuition fees. The scholarship is awarded to a third year student who at the end of the second year passes the best practical examination in Anatomy, Physiology, Biological Chemistry, Pharmacology, Pathology, Immunology and Serology.

✓ **The Clarence and Genevra Warfield Scholarships.**

(Valuation \$300.00 each)

There are five scholarships established by the Regents from the income of the fund bequeathed by the will of Dr. Clarence Warfield.

Terms and Conditions: These scholarships will be available to students of any of the classes of the course in medicine. Preference is given to students from the counties of the State of Maryland which the Medical Council may from time to time determine to be most in need of medical practitioners.

Any student receiving one of these scholarships must, after graduation and a year's internship, agree to undertake the practice of medicine for a term of two years in the county to which the student is accredited or in a county selected by the Council. In the event that a student is not able to comply with the condition requiring him to practice in the county to which he is accredited by the Council, the money advanced by the Regents shall be refunded. A bond in the amount of \$1,200., the expense of which is borne by the Fund, must be filed by the student accepting one of these scholarships for faithful performance of the conditions imposed.

ANNUAL HOSPITAL APPOINTMENTS.

On February first of each session the following annual appointments are made from among the graduates of the school:

TO THE UNIVERSITY HOSPITAL

Two Resident Surgeons. One Resident Obstetrician.
Two Resident Physicians. One Resident Pathologist.
One Resident Gynecologist. Thirteen Junior Residents on a rotating service.

A number of students are appointed each year, at the close of the session, as Clinical Assistants in the University Hospital for the summer months.

TO THE MERCY HOSPITAL

Chief Resident Physician. One Resident Gynecologist.
Three Resident Surgeons. One Resident Obstetrician.
One Resident Physician. Eight Junior Residents on a Rotating Service.

NOTICE TO STUDENTS.

The personal expenses of the students are at least as low in Baltimore as in any large city in the United States. The following estimates of a student's personal expenses for the academic year of eight months have been prepared by students, and are based upon actual experience.

<i>Items.</i>	<i>Low</i>	<i>Average</i>	<i>Liberal</i>
Books.....	\$27	48	75
College Incidentals.....	20	20	20
Board, eight months.....	200	250	275
Room rent.....	64	80	100
Clothing and laundry.....	50	80	150
All other expenses.....	25	50	75
Total.....	\$386	\$529	\$695

Students will save time and expense upon their arrival in the city by going direct to the School of Medicine on the University grounds, N. E. corner of Lombard and Greene Streets, where the Superintendent of Buildings, who may be found at his office on the premises, will furnish them with a list of comfortable and convenient boarding houses suitable to their means and wishes.

The Dean will, if desired, attend to the collection of checks and drafts for students.

For further information, apply to

J. M. H. ROWLAND, M. D., *Dean*,
Lombard and Greene Streets.

MATRICULATES, UNIVERSITY OF MARYLAND

SCHOOL OF MEDICINE AND COLLEGE OF

PHYSICIANS AND SURGEONS, 1923-24

POST-GRADUATE AND SPECIAL STUDENTS.

APGAR, RAYMOND, M.D.	Maryland	McLAUGHLIN, VICTOR BRUCE, M.D.	Maryland
CARMINE, WALTER MILLS, M.D.	Maryland	PATTERSON, REZIR D., M.D.	North Carolina
DAVIS, GEORGE BLACKMAN, M.D.	Maryland	RICHARDSON, CHARLES, M.D.	Maryland
DRAKE, CHARLES C., M.D.	Missouri	SLATE, JOHN W., M.D.	North Carolina
LEWSON, WILMER E.	Maryland	SLUSHER, HAMILTON J., M.D.	Maryland
LEITSCH, LELAND	Maryland	STONE, OTIS BUSH, M.D.	Maryland
McCLURE, MILDRED MACLIN	Maryland	VAN BIBBER, ARMPFIELD F., M.D.	Maryland
McDONALD, NORVAL H., D.D.S.	Maryland	ZIMMERMAN, AMELIA V., M.D.	Maryland

Fourth Year Class.

ANDERSON, ALBERT LOUIS	Maryland	McLANE, WILLIAM O., JR., B.S.	Maryland
ANDERSON, RICHARD S.	North Carolina	MEGAHAN, BURKE	Pennsylvania
ANTONIUS, NICHOLAS	New Jersey	MESENGER, BENJAMIN	New York
AYCOCK, THOMAS B., B.S.	North Carolina	MILLER, BENJAMIN	Maryland
BARNES, DIMON KEITH	Utah	MILLER, JACOB M.	Maryland
BEERMAN, HERMAN MARLIN	Pennsylvania	MILLER JOSEPH G.	Maryland
BELL, ROY AUSTIN, B.S.	West Virginia	MONROE, CLEMENT R.	North Carolina
BERKSON, MORRIS IRWIN	Pennsylvania	MORIARTY, LOUIS	Connecticut
BEST, DeLEON EDWARD, A.B.	North Carolina	MORRIS, PHILIP	New York
BEYER, MARGARET VIRGINIA	Pennsylvania	MORRISON, WM. H., JR., B.S.	Pennsylvania
BOYD, KENNETH BRAY	Maryland	MOTTA, PETER GEORGE, B.S.	Pennsylvania
CLAWSON, THOMAS A. JR., A.B.	Utah	NEUSTAEDTER, THEODORE	New York
DAUGHTRIDGE, ARTHUR LEE	North Carolina	NOCERA, DOMINGO	Porto Rico
DAVENPORT, CARLTON A.	North Carolina	NORMENT, JOHN E., A.B.	Maryland
DEAN, HUGH ELMER, A.B.	Utah	OWEN, THELMA VIOLA	Maryland
EDELMAN, EDWARD ISIDOR	New York	PACHTMAN, ISADORE	Pennsylvania
FIELDS, DANIEL ALLEN	North Carolina	PARKS, WALTER BEATTY	North Carolina
FINEGOLD, ABRAHAM	Pennsylvania	PERRY, ARCH H.	North Carolina
FISHER, HARRY RICHARD	New York	†PETERMAN, JAMES E	Pennsylvania
FLAX, IRA ISADOR	New Jersey	ROBERTS, BENNETT WATSON	North Carolina
FREHLING, JOSEPH MORRIS	Kentucky	ROBERTSON, EDWIN MASON	North Carolina
FRIEDMAN, IRVING	New Jersey	SALVATI, LEO HARRY, B.S.	West Virginia
GOFF, JOHN TREVY, B.S.	West Virginia	SAURBORNE, SYLVIA M. B., B.S.	West Virginia
GOLEMBE, JULIUS, B.S.	New York	SCAGNETTI, ALBERT	New York
GRANOFF, JOSEPH FRANK	New York	SCHINDLINGER, MORRIS I.	New York
GREIFINGER, MARCUS HARRY	New Jersey	SCHLENCER, LEO BRENNER	New Jersey
GROSE, ROBERT GLENN, A.B.	North Carolina	SCHULTZ, LOUIS ARIEL	New York
GROSSBLATT, PHILIP	New Jersey	SCHWAB, JOSEPH HENRY	New York
HOWELL, CLEWELL, B.S.	North Carolina	SCIMECA, ANTONIO ADOLFO	New York
JACOBSON, PHILIP	Maryland	SELIGER, ROBERT V.	New York
KAFKA, MAXIMILIAN MARTYN, B.S.	New York	SHAPIRO, RALPH N.	New Jersey
KNOX, JOSEPH CLYDE	North Carolina	SIEGEL, SAMUEL	Ohio
KOONS, EARLE WEANT, B.S.	Maryland	TABERSHAW, ARNOLD LEON	New York
KRATZ, FRED WILLIAM	Maryland	TALBOTT, RICHARD B., B.S.	West Virginia
MARSH, JAMES TOLLY, A.B.	Maryland	THEUERKAUF, FRANK JOSEPH	Pennsylvania
MARTON, SAMUEL	New York	WARREN, BRYAN POPE	North Carolina
MASERITZ, ISIDORE	Maryland	WEINSTOCK, ALEXANDER A.	New York
MAURILLO, DOMINICK FRANCIS	New York	WHALEY, THOMAS BRAVARD	Maryland
McCONNELL, HARVEY R., B.S.	South Carolina	ZASLOW, JOHN	New York

† A member of the Class of 1923 who was prevented from graduating on account of illness. He was graduated on February 1, 1924.

Third Year Class.

BALCERZAK, STANLEY PAUL.....	Pennsylvania	LAUS, EDWARD RAYMOND.....	New Jersey
BRIGLIA, NICHOLAS NATALE.....	Pennsylvania	LEIBENSPERGER, GEORGE F.....	Pennsylvania
BROWN, LEO T.....	District of Columbia	LENNON, WILLIAM EARLE.....	North Carolina
BYERLY, MARSHALL PAUL.....	North Carolina	LINDE, S. ARTHUR.....	Maryland
CADLE, WM. RODMAN.....	Maryland	LONDON, DANIEL.....	New York
CARDINALE, PASQUALE F.....	New Jersey	LOWE, CLAUDE MILTON.....	Pennsylvania
CASO, JOSE.....	Porto Rico	MCANALLY, ALFRED LOOMIS.....	North Carolina
CLAHR, ABRAHAM ALBERT.....	New York	MILLER, EDGAR R., A. B.....	Pennsylvania
COE, JOHN M.....	Maryland	MINNEFOR, CHAS. A.....	New Jersey
COONAN, THOMAS J., A.B.....	Maryland	MONTANI, ANTHONY CARMEN, B.S.....	Ohio
COPE, ARTHUR A., A.B.....	Pennsylvania	NATARO, JOSEPH.....	New Jersey
DODD, BENJAMIN R., A.B.....	North Carolina	NAVARRO, V. A., A.B.....	Philippine Islands
DODGE, EVA FRANCETTE, A.B.....	North Carolina	NELSON, JAMES WHARTON, A.B.....	Maryland
DRAPER, L. MCF., A.B.....	North Carolina	NOCK, RANDOLPH MAXWELL.....	Maryland
DRESKIN, JACOB LOUIS.....	New Jersey	OSHRIN, HENRY.....	New Jersey
EASTLAND, JOHN S., A.B.....	New York	PINSKY, MYER MORDECAI.....	New Jersey
ELGIN, LEE WILLIAM.....	Maryland	PLASSNIG, EDWIN, B.S.....	Maryland
ELLIS, FRANCIS A., A.B.....	Maryland	POLIZOTTI, JOSEPH L.....	New Jersey
EPSTEIN, HARRY HERMAN.....	New York	PULASKI, LEO EDWARD.....	Pennsylvania
EVERETT, FRANKLIN R.....	Maryland	RATHSPRECHER, ISADORE.....	New Jersey
FANCHER, H. W., JR., B.S.....	Connecticut	REYNOLDS, KNIGHT, B.S.....	West Virginia
FARBER, RAPHAEL.....	Pennsylvania	RICHMOND, LEWIS CASS, JR., A.B.....	Kentucky
FIELDS, ABIAH CLEMENTS.....	Alabama	ROBERTS, BRYAN NAZER, A.B.....	North Carolina
FISCHMAN, HAROLD.....	New Jersey	SARNOFF, JACK.....	New York
FRIEDMAN, BERNARD.....	New York	SILVERSTEIN, JACOB MAURICE.....	New Jersey
FUCHS, ABNER M.....	New York	SIMON, JOSEPH R.....	Pennsylvania
GALE, LOUIS HARRY.....	Pennsylvania	SIMPSON, HENRY HARDY, A.B.....	North Carolina
GASTON, WILLIAM BRYAN.....	West Virginia	SINTON, WILLIAM ALLEN.....	Virginia
GATTENS, WILBER ELTON, B.S.....	Maryland	SPELSBERG, WALTER W., B.S.....	West Virginia
GLICK, SAMUEL, A.B.....	Maryland	STARCK, FELIX CECIL, B.S.....	West Virginia
GURLEY, HUBERT TAYLOR.....	North Carolina	SULMAN, WILLIAM R.....	Pennsylvania
HALL, CECIL MAURICE, B.S.....	West Virginia	TOMAIUOLI, MICHAEL FRANCIS.....	New Jersey
HAMMOND, KENT CATO, B.S.....	West Virginia	TURNER, THOMAS BOURNE, B.S.....	Maryland
HERBERT, ALPHA NATHAN.....	New Jersey	VILA-MORALES, JAIME.....	Porto Rico
HERTZ, BEN.....	New York	VISCONTI, JOSEPH A.....	New Jersey
HOFER, RALPH HAYES.....	North Carolina	WARD, TITUS WILLIAM, A.B.....	North Carolina
HOWELL, JAMES GERALD, B.S.....	Pennsylvania	WASSERWEIG, MARTIN MAX.....	Pennsylvania
HULLA, JAROSLAV.....	Maryland	WIDMEYER, ROBERT S., B.S.....	West Virginia
JACOBS, MAURICE ALBERT.....	Maryland	WIENER, JOSEPH.....	New York
KEATING, JOHN PATRICK.....	Connecticut	WILSON, PAUL R., B.S.....	West Virginia
KIMBROUGH, JOSEPH W., JR.....	North Carolina	WINSTEAD, JOHN LINDSAY.....	North Carolina
KNOTTS, WILLIAM KENNETH.....	Maryland	ZIMMERMAN, CHARLES C.....	Maryland

Second Year Class.

ALPERIN, BENJAMIN.....	New York	*CONIFF, ARTHUR A., A.B.....	Maryland
ANKER, HARRY.....	Ohio	D'ANGELO, ANTONIO F.....	Rhode Island
ASKIN, AARON JOHN, A.B.....	Maryland	DEVINCENTIS, HENRY.....	New Jersey
BALLARD, MAGGIE BYRNSIDE.....	West Virginia	DIAMOND, H. ELIAS, B.S.....	New York
BEACHLEY, JACK HENSON.....	Maryland	DI PAULA, FRANK ROSARIO, A.B.....	Maryland
*BEAMON, HORACE V., A.B.....	North Carolina	EANET, PAUL.....	Maryland
BLOCH, ADOLPH.....	New Jersey	EDMONDS, CHARLES WILLIAM.....	Maryland
BLOUGH, HOMER C., B.S.....	Pennsylvania	FINE, MORRIS AARON.....	Maryland
BRONSTEIN, IRVING.....	New York	FINKLESTEIN, ABRAHAM HARRY.....	New York
CALVIN, WARREN E., B.S.....	Maryland	FREEDMAN, HERMAN.....	New Jersey
COHEN, MORRIS, A.B.....	Maryland	FREEDMAN, MAX.....	New Jersey

* Did not complete course.

Second Year Class.

FREUDER, ARTHUR NATHAN.....	New York	REIFSCHNEIDER, HERBERT E., A.B.....	Maryland
GAHAN, EMANUEL.....	New York	REX, ELMER GALEN.....	Ohio
GERAGHTY, FRANCIS J., A.B.....	Maryland	ROCCO, FRANK.....	New Jersey
GERBER, ISADORE, A.B.....	Maryland	ROSEMAN, Ned.....	New York
GORDON, ABEL.....	New Jersey	ROSENBERG, ALBERT ABRAHAM.....	Pennsylvania
HELPHOND, DAVID MATHEW.....	New York	ROSENFELD, MAX HARRY, A.B.....	Maryland
HIBBITTS, JOHN THOMAS.....	Maryland	*ROSENSTEIN, JACOB.....	New York
HYMAN, CALVIN, A.B.....	Maryland	ROTHBERG, ABRAHAM S., B.S.....	New York
JENSEN, JACOB ROED, B.S.....	Denmark	SASHIN, DAVID.....	New York
JOLSON, MEYER STANLEY, A.B.....	Maryland	SAX, BENJAMIN J.....	New York
KNAPP, ALPHONSE JOSEPH, A.B.....	Pennsylvania	SCHENKER, PAUL.....	Maryland
*KRALIKAUCKAS, JOSEPH.....	New Jersey	SCHMUKLER, JACOB.....	New Jersey
LAVY, LOUIS THEODORE.....	Maryland	SCHNEIDER, DAVID, A.B.....	Maryland
LEVIN, H. EDMUND.....	Maryland	SCHUMAN, WILLIAM, A.B.....	Maryland
LEVIN, JOSEPH.....	New Jersey	SCHWARTZ, RALPH ALFRED.....	New Jersey
LUMPKIN, LLOYD UBER, B.S.....	Maryland	SHANKLIN, WILLIAM M., B.S.....	Maryland
LUSBY, FRANK FARRIER, A.B.....	Maryland	SHERMAN, ELIZABETH BOWMAN, A.B.....	Virginia
MANGINELLI, EMANUEL.....	New York	SPANO, FRANK.....	New York
MARTINO, GEORGE CAPRIO.....	New Jersey	*TAUB, SAMUEL.....	New York
MATTIKOW, BERNARD, B.S.....	New York	TAYNTOR, LEWIS OLDS, Ph.C.....	Pennsylvania
MERKEL, WALTER C., A.B.....	Pennsylvania	TEITELBAUM, MAURICE L.....	New York
MILLER, HARRY.....	New York	THOMPSON, THOMAS PAYNE, A.B.....	Maryland
MISENHEIMER, ED. ALEX.....	North Carolina	TOBIAS, HERBERT RAMSEY.....	Maryland
MORICONI, ALBERT FRANCIS.....	New Jersey	TOTTERDALE, WILLIAM G., A.B.....	Maryland
*NAYLOR, SINGLETON T., B.S.....	Maryland	TRUBEK, MAX, A.B.....	New Jersey
*NORMENT, CLINTON CRAWFORD.....	Maryland	WEINSTEIN, SAMUEL.....	New Jersey
*O'BOYLE, THOMAS JOSEPH.....	Pennsylvania	WEISS, LOUIS LEO.....	New York
POLSUE, WILLIAM CLEWELL.....	West Virginia	WESELEY, LOUIS JEROME.....	New York
RATTENNI, ARTHUR.....	Rhode Island	WOLFE, SAMUEL BENJAMIN.....	Maryland

First Year Class.

ADZIMA, JOSEPH MATTHEW.....	Connecticut	FRIEDMAN, MEYER HENRY.....	New Jersey
APTAKER, ALBERT JACK.....	New York	GAMBALE, FRANCIS JOSEPH.....	Connecticut
ARMACOST, JOSHUA HARPER.....	Maryland	GELLAR, ABRAHAM, B.S.....	New York
BANKHEAD, JOHN M., B.S.....	South Carolina	GILL, CHARLES EDWARD.....	Delaware
BASIL, GEORGE CHESTER, Ph.G.....	Maryland	GILLIS, FRANCIS WINFRED.....	Maryland
BELSKY, HYMAN.....	New York	GINSBERG, HENRY.....	Maryland
BENESUNES, JOSEPH GEORGE, A.B.....	Maryland	GLASS, LOUIS JOSEPH, Ph.G.....	Maryland
BIALOSTOSKY, JULIUS, B.S.....	New York	GLICK, BERNARD.....	New Jersey
BIRNBAUM, JOSEPH OSIAS.....	New York	GOLDBERG, ISIDORE.....	New Jersey
CADDEN, JOHN FRANCIS, JR.....	West Virginia	GOLDSTEIN, MILTON JOSEPH.....	New York
CAREY, THOMAS NELSON.....	Maryland	GROSSFELD, MICHAEL JOSEPH.....	Maryland
CASTRONOVO, JOSEPH.....	Rhode Island	*HECKER, NATHANIEL, Ph.G.....	Maryland
CHASE, WILLIAM WILEY, A.B.....	Maryland	HEISLEY, ROWLAND S.....	Maryland
CHRISTIAN, WILLIAM.....	Pennsylvania	HEWITT, J. F., A.B. (Chemistry).....	Maryland
CLEMSON, EARLE PRINCETON.....	Maryland	HUMMEL, IRA LEE COTTRELL.....	New Jersey
COHEN, BERNARD J., Ph.G.....	Maryland	JONES, ORA REED.....	Ohio
COHEN, MORRIS DANIEL.....	New York	KAHAN, PHILIP J.....	New York
CUSTY, EDWARD GUILBERT, A.B.....	Maryland	KARNS, CLYDE FILLMORE, B.S.....	Maryland
DAVIS, HENRY VINCENT.....	Maryland	*KATZEN, ABRAHAM, A.B.....	Maryland
DERWIN, JAMES FRANCIS.....	Connecticut	KAUFMAN, ISRAEL, B.S.....	New York
DONCHI, SOL MARVIN, B.S.....	New Jersey	KLAWANS, MAURICE FRANCIS.....	Maryland
ELIASON, HAROLD WILLIAM.....	West Virginia	KUTNER, CHARLES.....	New Jersey
FELDMAN, JACOB.....	New York	LASSMAN, SAMUEL, B.S.....	New York
FOSTER, WILLIAM ABRAM.....	Pennsylvania	LAZOW, SOL M.....	New York

* Did not complete course.

First Year Class.

LENSON, BYRUTH KING.....	Maryland	SCHWEDEL, JOHN BERNARD.....	Maryland
LEYKO, JULIUS JOSEPH, A.B.....	Maryland	SINGER, JACK JEROME.....	Maryland
LILLY, GOFF PLATT.....	West Virginia	SMITH, PAUL L.....	Pennsylvania
LITTMAN, IRVING I.....	Maryland	SOBKOV, SAMUEL.....	Maryland
*MARCIN, THOMAS GEORGE, A.B.....	Maryland	SPARTA, TONY.....	Pennsylvania
MATASSA, VINCENT LOUIS.....	Maryland	STACY, THEODORE E., Jr., Ph.G.....	Maryland
McKEE, ALBERT VINCENT.....	Pennsylvania	STONESIFER, CHAS. HIRAM A. B.....	Maryland
MICHEL, GEORGE CHARLES.....	Maryland	SUSSER, MAX HERMAN.....	New Jersey
MOORE, GEORGE RICHARD.....	Connecticut	SWANK, JAMES LEVY.....	Pennsylvania
MORAN, JOHN E., Ph.G.....	New Hampshire	SWARTZWELDER, WALLACE RAY.....	Pennsylvania
MORRIS, FRANCIS KAILER, A.B.....	Maryland	TEAGUE, FRANCIS BAILEY.....	Virginia
*NEWMAN, RICHARD D.....	Maryland	TENAGLIA, ENTIMIO D.....	Rhode Island
NUSSBAUM, SAMUEL.....	New York	TOLLIN, LOUIS.....	New Jersey
PEAKE, CLARENCE WILLIAM.....	Kentucky	TUMMINNELLO, SALVATORE A.....	Maryland
*PELTEKIAN, PANOS SARKIS, A.B.....	Maryland	UPTON, HIRAM EUGENE.....	Vermont
PHILLIPS, JOHN ROBERTS, A.B.....	Maryland	VOIGT, HERMAN ALBERT.....	Maryland
REPASKY, JOHN.....	Ohio	VON SCHULZ, AUGUSTINE PAUL.....	Maryland
RICH, BENJAMIN S., A.B.....	Maryland	WACK, FREDERICK VAN DEURSEN.....	New Jersey
ROETLING, CARL PAUL.....	New York	WAESCHE, FREDERICK SETON, A.B.....	Maryland
RUIZ, EMILIO M.....	Porto Rico	*WERNER, SIDNEY EDWIN.....	Maryland
RUTTER, JOSEPH HOWARD.....	Florida	*WHITE, BUELAH MAY.....	Maryland
SAFFELL, JAMES GLEN.....	Maryland	WILNER, JOSEPH WALTER.....	New York
SCHENKER, BENJAMIN NATHAN.....	New Jersey	WHITTINGTON, CLAUDE T.....	North Carolina
*SCHMIDT, GEORGE HENRI.....	Maryland	WOHLREICH, JOSEPH JACOB.....	New Jersey
SCHNIERER, SAMUEL BENJAMIN.....	Connecticut	WOLLAK, THEODORE.....	Maryland

* Did not complete course.

GENERAL SUMMARY OF STUDENTS ATTENDING THE UNIVERSITY OF MARYLAND SESSION OF 1923-24

College of Agriculture.....	291	School of Law.....	552
College of Arts and Sciences.....	301	School of Medicine.....	340
College of Commerce and Business Administration.....	547	School for Nurses.....	117
School of Dentistry.....	486	School of Pharmacy.....	188
College of Education.....	287	Summer School, 1923.....	452
College of Engineering.....	198		
Graduate School.....	77	Total.....	3864
College of Home Economics.....	28	Duplications.....	135
		Net Total.....	3729

GRADUATES OF UNIVERSITY OF MARYLAND SCHOOL OF MEDICINE AND COLLEGE OF PHYSICIANS AND SURGEONS, JUNE 7, 1924.

ANDERSON, ALBERT LOUIS.....	Maryland	MCLANE, WILLIAM O., JR., B.S.....	Maryland
ANDERSON, RICHARD S.....	North Carolina	MEGAHAN, BURKE.....	Pennsylvania
ANTONIUS, NICHOLAS.....	New Jersey	MESSINGER, BENJAMIN.....	New York
AYCOCK, THOMAS B., B.S.....	North Carolina	MILLER, BENJAMIN.....	Maryland
BARNES, DIMON KEITH.....	Utah	MILLER, JACOB M.....	Maryland
BEERMAN, HERMAN MARLIN.....	Pennsylvania	MILLER, JOSEPH G.....	Maryland
BELL, ROY AUSTIN, B.S.....	West Virginia	MONROE, CLEMENT R.....	North Carolina
BERKSON, MORRIS IRWIN.....	Pennsylvania	MORIARTY, LOUIS.....	Connecticut
BEST, DELEON E., A.B.....	North Carolina	MORRIS, PHILIP.....	New York
BEYER, MARGARET VIRGINIA.....	Pennsylvania	MORRISON, WM. H., JR., B.S.....	Pennsylvania
BOYD, KENNETH BRAY.....	Maryland	MOTTA, PETER GEORGE, B.S.....	Pennsylvania
CLAWSON, THOMAS ALFRED, JR., A.B.....	Utah	NEUSTAEDTER, THEODORE.....	New York
DAUGHTRIDGE, ARTHUR LEE.....	North Carolina	NOCERA, DOMINGO.....	Porto Rico
DAVENPORT, CARLTON A.....	North Carolina	NORMENT, JOHN E., A.B.....	Maryland
DEAN, HUGH ELMER, A.B.....	Utah	OWEN, THELMA VIOLA.....	Maryland
EDELMAN, EDWARD ISIDOR.....	New York	PACHTMAN, ISADORE.....	Pennsylvania
FIELDS, DANIEL ALLEN.....	North Carolina	PARKS, WALTER BEATTY.....	North Carolina
FINEGOLD, ABRAHAM.....	Pennsylvania	PERRY, ARCH H.....	North Carolina
FISHER, HARRY RICHARD.....	New York	†PETERMAN, JAMES E.....	Pennsylvania
FLAX, IRA ISADOR.....	New Jersey	ROBERTS, BENNETT WATSON.....	North Carolina
FREHLING, JOSEPH MORRIS.....	Kentucky	ROBERTSON, EDWIN MASON.....	North Carolina
FRIEDMAN, IRVING.....	New Jersey	SALVATI, LEO HARRY, B.S.....	West Virginia
GOFF, JOHN TREVVY, B.S.....	West Virginia	SAURBORNE, SYLVIA M. B., B.S.....	West Virginia
GOLEMBE, JULIUS, B.S.....	New York	SCAGNETTI, ALBERT.....	New York
GRANOFF, JOSEPH FRANK.....	New York	SCHINDLINGER, MORRIS I.....	New York
GRIEFINGER, MARCUS HARRY.....	New Jersey	SCHLENGER, LEO BRENNER.....	New Jersey
GROSE, ROBERT GLENN, A.B.....	North Carolina	SCHULTZ, LOUIS ARIEL.....	New York
GROSSBLATT, PHILIP.....	New Jersey	SCHAWB, JOSEPH HENRY.....	New York
HOWELL, CLEWELL, B.S.....	North Carolina	SCIMECA, ANTONIO ADOLFO.....	New York
JACOBSON, PHILIP.....	Maryland	SELIGER, ROBERT V.....	New York
KAFKA, MAXIMILIAN M., B.S.....	New York	SHAPIRO, RALPH N.....	New Jersey
KNOX, JOSEPH CLYDE.....	North Carolina	SIEGEL, SAMUEL.....	Ohio
KOONS, EARLE WEANT, B.S.....	Maryland	TABERSHAW, ARNOLD LEON.....	New York
KRATZ, FRED WILLIAM.....	Maryland	TALBOTT, RICHARD B., B.S.....	West Virginia
MARSH, JAMES TOLLY, A.B.....	Maryland	THEUEKAUF, FRANK JOSEPH.....	Pennsylvania
MARTON, SAMUEL.....	New York	WARREN, BRYAN POPE.....	North Carolina
MASERITZ, ISIDORE.....	Maryland	WEINSTOCK, ALEXANDER A.....	New York
MAURILLO, DOMINICK FRANCIS.....	New York	WHALEY, THOMAS BRAVARD.....	Maryland
MCCONNELL, HARVEY R., B.S.....	South Carolina	ZASLOW, JOHN.....	New York

* Graduated February 1, 1924.

PRIZEMEN.

University Prize,—Gold Medal, LOUIS ARIEL SCHULTZ

Certificates of Honor.

ALEXANDER A. WEINSTOCK
MARCUS H. GRIEFINGER
KENNETH BRAY BOYD
ROBERT VICTOR SELIGER
ANTONIO H. SCIMECA

JOHN E. NORMENT
JEROME FRANK GRANOFF
CLEWELL HOWELL
WILLIAM OLIVER MCLANE, JR.

* In the third year the Dr. Jose L. Hirsh Memorial Prize of \$50.00 was awarded to Thomas J. Coonan, A.B., for the best work in Pathology during the second and third years.

ALUMNI ASSOCIATION OF THE SCHOOL OF MEDICINE.

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817 PARK AVENUE,

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H. F. HILL, M.D.

Necrologist.

W. J. TODD, M.D.

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ROBERT L. MITCHELL, M.D.

CHARLES BAGLEY, M.D.

Hospital Council.

CHARLES BAGLEY, M.D.

G. MILTON LINTHICUM, M.D.

Annual meeting of the Alumni Association June 2, 1925.

Annual dinner of the Alumni Association, June 4, 1925.

ENDOWMENT FUND.

The following, all Alumni of the University, constitute the Board of Trustees of this Fund:

HARRY ADLER, M.D.

JOHN B. THOMAS, Ph.G.

J. M. H. ROWLAND, M.D.

DANIEL BAKER, JR.

RANDOLPH WINSLOW, A.M., M.D., LL. D.

HORACE M. DAVIS, D.C.D.

ARTHUR M. SHIPLEY, Sc.D., M.D.

This Board is incorporated by act of the Legislature of the State, its legal title being "The Trustees of the Endowment Fund of the University of Maryland," and is independent and self-perpetuating. Its powers are limited *to the expenditure of the interest derived from the fund*, which is to be applied in the discretion of the Board for the benefit of the University. Contributions, donations and bequests are solicited from Alumni and friends. They may be made to the general or University Fund, to the Medical Fund or to any other department of the University. If intended for the School of Medicine, they may be given to the general medical fund or to some special object, as building, research, library, pathology, hospital, publication, laboratories, gymnasium, scholarship, medal, prize, etc., in which case the wishes of the donor will be strictly regarded. Attention is invited to the "Charles Frick Research Fund," already established in memory of that distinguished investigator. Checks should be made payable to B. Horace M. Davis, D.C.D., Treasurer, Professional Building, Baltimore, Md.

FORMS OF DEVISE OR BEQUEST.

To School Of Medicine.

I give, devise and bequeath to the Regents of the University of Maryland, a corporation incorporated under the laws of the State of Maryland, for the benefit of the Faculty of Physic.....

(Here state amount or describe property).

To Endowment Fund.

I give, devise and bequeath to the Trustees of the Endowment Fund of the University of Maryland, a corporation incorporated under the laws of the State of Maryland, for the benefit of the Faculty of Physic.....

(Here state amount or describe property).

SCHOOLS OF NURSING.

THE UNIVERSITY OF MARYLAND SCHOOL OF NURSING.

FACULTY AND INSTRUCTORS.

Superintendent of Nurses and Director of School of Nursing—

ANNIE CRIGHTON, R.N.

Assistant Superintendent of Nurses—

STELLA R. RICKETTS, R.N.

Instructor in Nursing—

JANET NESBITT SMITH, R.N.

Instructor in Nursing and Supervisor of Wards—

LOUISE L. SAVAGE, R.N.

Assistant Instructor in Nursing and Supervisor of Wards—

GRACE ELGIN, R.N.

*Instructor in Surgical Technique for Nurses
and*

Supervisor of Operating Pavilion—

ELIZABETH AITKENHEAD, R.N.

Instructor in Dietetics—

MIRIAM CONNELLY

Instructor in Massage—

EDITH WALTON

Instructor in Social Service—

GRACE PEARSON, R.N.

HELEN DUNN, R.N.	Night Supervisor
MARY E. ROLPH, R.N.	Supervisor—Nurses Home
JANE MOFFAT, R.N.	Supervisor—Dispensary
LENA STAUFFER, R.N.	Head Nurse—Obstetrical Ward
IDA NAGEL, R.N.	Head Nurse Private Hall
LEONA MCMAHON, R.N.	Head Nurse Private Hall

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Anatomy.

C. L. DAVIS, M.D.

Physiology.

C. C. CONSER, M.D.

Bacteriology

F. W. HACHTEL, M.D.

Chemistry.

FRANK N. OGDEN, M.D.

Materia Medica

C. C. HABLSTON, M.D.

Medicine

MAURICE C. PINCOFFS, M.D.

JOSEPH E. GICHNER, M.D.

H. M. STEIN, M.D.

L. A. M. KRAUSE, M.D.

J. HARRY ULLRICH, M.D.

Pediatrics

CHARLES L. SUMMERS, M.D.

Psychiatry and Neurology

G. M. SETTLE, M.D.

Skin and Venereal Diseases

HARRY M. ROBINSON, M.D.

Ophthalmology

HARRY FRIEDENWALD, M.D.

Otology.

J. W. DOWNEY, M.D.

Surgery

ARTHUR M. SHIPLEY, M.D.

Laryngology and Rhinology

E. A. LOOPER, M.D.

Gynecology

HUGH BRENT, M.D.

Orthopaedic Surgery

R. TUNSTALL TAYLOR, M.D.

Obstetrics

L. H. DOUGLASS, M.D.

*Social Service**Special Lecturers.*

STUDENTS ENROLLED 1923-24

Seniors	32
Intermediates	21
Juniors and Preparatory	21
	—
<i>Total</i>	74

GENERAL STATEMENT.

The University of Maryland School for Nurses was established in the year 1889.

Since that time it has been an integral part of the University Hospital, coming under the same government.

The school is non-sectarian, the only religious services being morning prayers.

The University Hospital is a general hospital containing about 250 beds. It is equipped to give young women a thorough course of instruction and practice in all phases of nursing including experience in the operating room.

The school offers the student nurse unusual advantages in its opportunity for varied experience and in its thorough curriculum taught by best qualified instructors and members of the Medical Staff of the University.

ADMISSION—Requirements: In order to become a candidate for admission to the Training School, application must be made in person or by letter, to the Superintendent of Nurses. An application by letter should be accompanied by a statement from a clergyman testifying to good moral character and from a physician certifying to sound health and unimpaired faculties. No person will be considered who is not in a good physical condition between the ages of 18 and 35. She must also show that she has a High School education or its equivalent. This is the minimum requirement, as women of superior education and culture are given preference provided they meet the requirements in other particulars.

The fitness of the applicant for the work and the propriety of dismissing or retaining her at the end of her term of probation, is left to the decision of the Superintendent of Nurses. Misconduct,

disobedience, insubordination, inefficiency, or neglect of duty are causes for dismissal at any time by the Superintendent of Nurses, with the approval of the President of the University.

Time: Students are admitted in February, June and September.

HOURS ON DUTY: During the probation term the students are on duty not more than six hours daily. During the Junior, Intermediate and Senior years, the students are on eight hour day duty, with six hours on Sunday and Holidays, and ten hour night duty. The night duty periods are approximately two months each, with one day at the termination of each term for rest and recreation. The period of night duty is approximately five or six months during the three years.

SICKNESS: A physician is in attendance each day, and when ill all students are cared for gratuitously. The time lost through illness in excess of two weeks, during the three years must be made up. Should the authorities of the school decide that through the time lost the theoretical work has not been sufficiently covered to permit the student to continue in that year, it will be necessary for her to continue her work with the next class.

VACATIONS: Vacations are given between June and September. A period of three weeks is allowed the student at the completion of the first year and four weeks at the completion of the second year.

EXPENSE: A student receives her board, lodging and a reasonable amount of laundry from the date of entrance. During her period of probation she provides her own uniforms made in accordance with the hospital regulations. After being accepted as a student nurse she wears the uniform furnished by the hospital. The student is also provided with textbooks and in addition to this is paid five dollars (\$5.00) a month. Her personal expenses during the course of instruction and training will depend entirely upon her individual habits and tastes.

GENERAL PLAN OF INSTRUCTION.

The course of instruction covers a period of three years.

JUNIOR YEAR.

First Term.

The Junior Year is divided into two periods. The first term is the preparatory period (4 months) and the second the junior term.

In the preparatory term the student is given practical instruction in:—

- I. The making of hospital and surgical supplies. The cost of hospital materials, apparatus and surgical instruments.
- II. Household economics and the preparation of foods.
- III. The hospital out-patients department and dispensary.

During this term the practical work is done under constant supervision, and teaching is given correlatively.

Excursions are made to markets, hygienic dairies, linen rooms, laundry and store room.

The maximum number of hours per week in formal instructions divided into laboratory and lecture periods is thirty hours and includes courses in Anatomy and Physiology, Dietetics, Materia Medica, Personal Hygiene, Drugs and Solutions, Household Economics, Short course in Ethics and History of Nursing.

At the close of the first half of Junior Year the students are required to pass satisfactorily both the written and oral tests, and failure to do so will be sufficient reason to terminate the course at this point.

SUBSEQUENT COURSE.

The course of instruction, in addition to the probationary period, occupies two and three-fourths years, and students are not accepted for a shorter period.

After entering the wards, the students are constantly engaged in practical work under the immediate supervision and direction of the head nurses and instructors.

JUNIOR YEAR.

Second Term.

During this period the students receive theoretical instruction in Massage, Bacteriology, General Surgery and Introductory Medicine. Practical instruction is received in the male and female, medical, surgical and childrens' wards.

INTERMEDIATE YEAR.

During this period the theoretical instruction includes Pediatrics, General Medicine, Infectious Diseases, Obstetrics, Gynecology and Orthopaedics. The practical work provides experience in the nursing of obstetrical and gynecological patients, in the operating rooms and the out-patient department.

SENIOR YEAR.

During this period the student receives short courses of lectures on subjects of special interest. This includes a consideration of the work of institutions of public and private charities, of settlements, and various branches of professional work in nursing.

Experience is given in executive and administration work to those showing exceptional ability in the Senior Year. With these students conferences are held on administration and teaching problems.

EXAMINATIONS: At the end of the first half year, students are examined in Anatomy, Physiology, Materia Medica, Dietetics and Hygiene. At the end of the first year in Surgery and Bacteriology.

During the second year they are examined in Urinalysis, Massage, Gynecology, General Medicine, Infectious Diseases, Obstetrics and Pediatrics. At the end of the third year the final examination in Nervous and Mental Diseases, Diseases of Special Senses, Venereal Diseases, Ethics and History of Nursing.

Examinations—which are both written and oral—include practical tests, and the standing of the student is based upon the general character of work throughout the year, as well as the results of the examinations. Students must pass all subjects before entering upon the work of the following year.

GRADUATION: The diploma of the School will be awarded to those who have completed satisfactorily the full term of three years and have passed successfully the final examinations.

SCHOLARSHIPS: One scholarship has been established by the Alumnae of the Training School. It entitles a nurse to six weeks course at Teachers College, New York. This scholarship is awarded at the close of the third year to the student whose work has been of the highest excellence, and who desires to pursue post-graduate study and special work.

An Alumnae Pin is presented by the Women's Auxiliary Board to the student who at the completion of three years shows exceptional executive ability.

Graduates, 1924.

ALEXANDER, EDITH	North Carolina
APPLETON, PAULINE	Pennsylvania
BARNES, MERIAN	North Carolina
BELL, JANET	Connecticut
BENNETT, ALICE	Maryland
BENNETT, PEARL	Maryland
BRUDE, LUCY	Maryland
CALLAWAY, ESTHER	Delaware
COMPTON, PINKIE	West Virginia
COPENHAVER, ELIZABETH	Maryland
DAVIS, MARIE	Maryland
FISHER, MARY	Maryland
FORREST, LOLA	Maryland
HEADLEY, SARAH	Virginia
HOOPES, MADELINE	Maryland
HUGHES, CLAIRE	Maryland
KRAFT, DOROTHY	Maryland
MCCORMACK, MARGARET	Massachusetts
MORGART, HELEN	Pennsylvania
MOORE, RACHEL	Maryland
POPE, JANE	North Carolina
SCOTT, JANE	Maryland
SCHAALE, BERNICE	Maryland
SHAFFER, MARY	Maryland
SLEZ, IRENE	Maryland
SPENCER, LENORA	Maryland
SPONSLER, MARY	Pennsylvania
TILLINGHAST, ROBINA	North Carolina
THOMAS, KATHRYN	Pennsylvania
THOMPSON, ICELENE	Maryland
WHITWORTH, ESTHER	Maryland
WERTZ, GLADYS	South Carolina

THE MERCY HOSPITAL TRAINING SCHOOL FOR NURSES.

The Mercy Hospital Training School for Nurses, conducted by the Sisters of Mercy, was organized and incorporated under the general laws of the State of Maryland in 1899. Its first students were graduated in 1901; and on the passage of the bill for registration in 1904, the Sisters of Mercy, connected with the Hospital service, received certificates as registered nurses.

The Training School was affiliated with the Board of Regents of the State of New York in 1906; and in the same year the

Alumnae Association was incorporated, having been previously connected with the Associated Alumnae of the United States.

The graduates, as active members, have been much interested in the movements of the Maryland Association of Graduate Nurses, to whom they have given every encouragement to uplift the profession in its many works of district nursing, tuberculosis campaign, Red Cross movements, etc.

The requirements for entrance are: Highest moral standing, health, intelligence and a High School education or its equivalent. The age limit is twenty to thirty-five years.

After a three months' probation, candidates, if they possess the necessary qualifications, are admitted to the Training School proper, receiving five dollars a month wherewith to secure textbooks, etc., the education they receive being considered their compensation. The right is reserved to dismiss pupils for any cause which may be deemed sufficient by the Sister Superior or Superintendent.

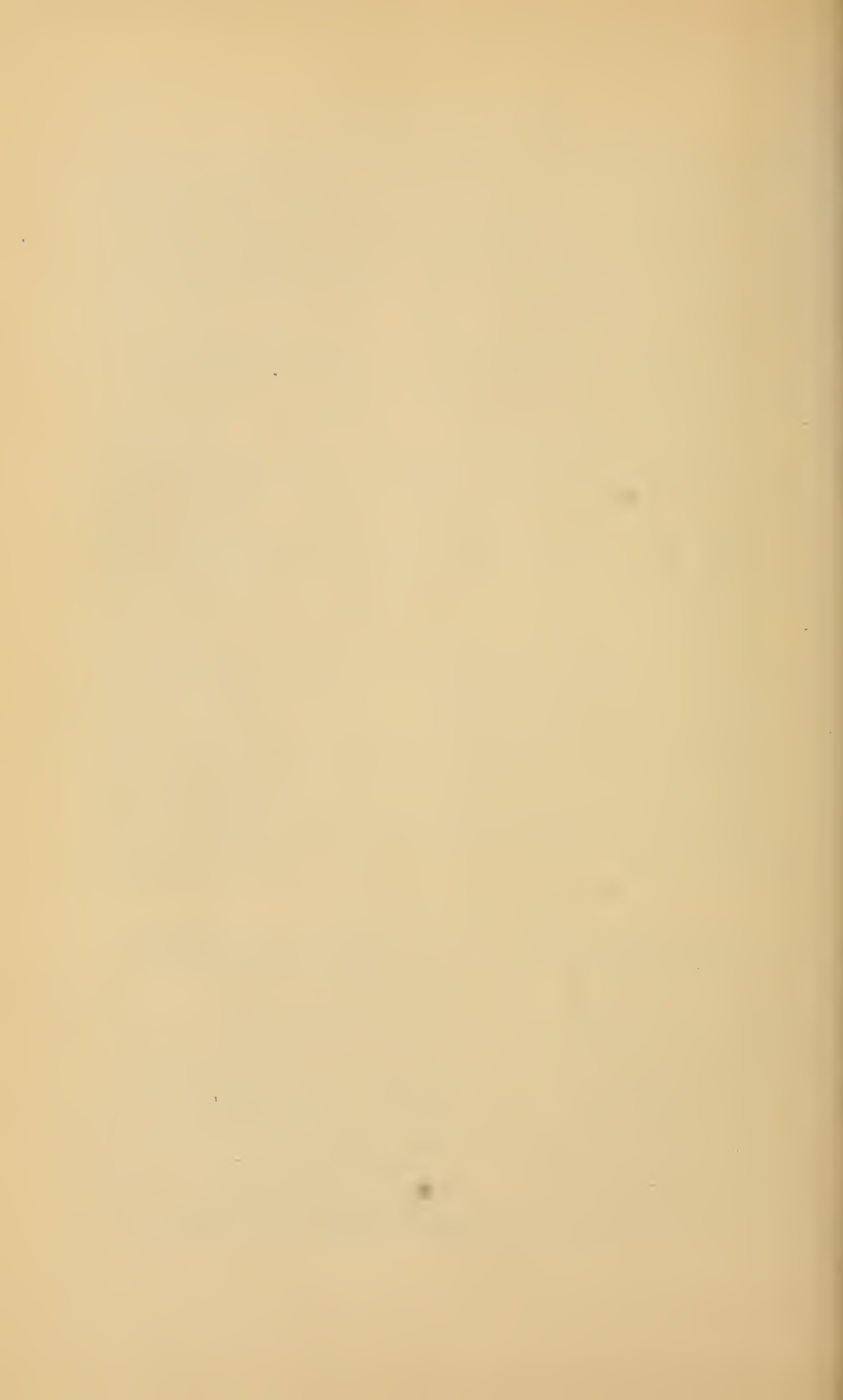
The course of training comprises three years of theory and practice. The clinical advantages are exceptional. The medical, surgical, orthopaedic, gynecological, obstetrical, children's and dietetic departments give valuable practical experience. The nurses are taught the theory of nursing by class recitations and demonstrations by efficient Sister instructors. Supplementing this training is a course of lectures from the professors of the University of Maryland School of Medicine, who are untiring in their efforts to keep the School abreast with modern scientific developments.

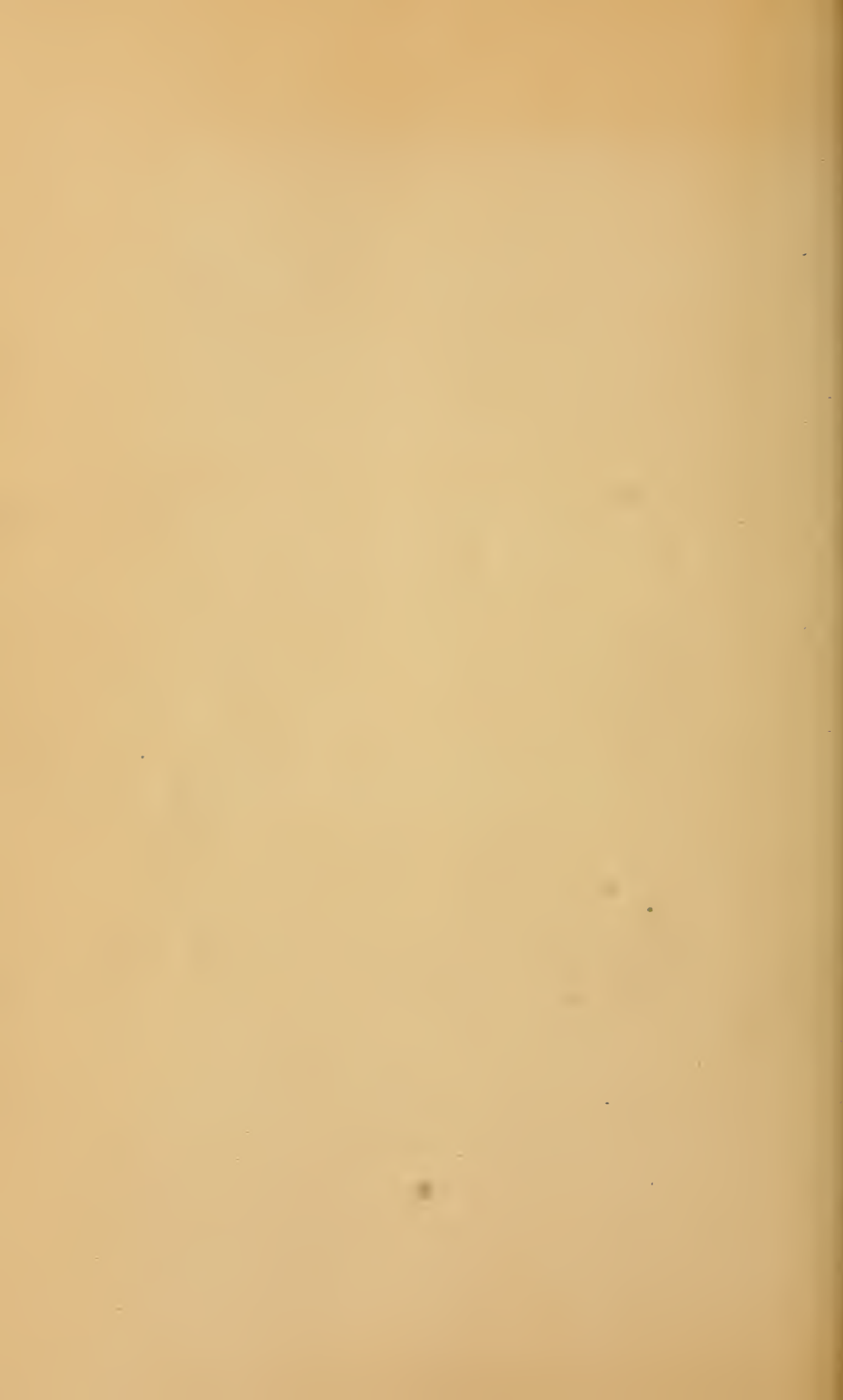
GRADUATES, CLASS 1924.

SISTER MARY DESALES BURKE
 ALLEY, KATHERINE URSULA
 HUNTER, LILLIAN FRANCES
 PRICE, GERTRUDE DOLAN
 BURKE, KATHRYN TERESA
 BOCKMIER, RITA CATHERINE
 DUTRA, HELEN ALICE
 MAGUIRE, HELEN AGNES
 SMITH, ALICE HILDEGARD
 STREETT, GENIVIEVE MARIA
 SHATZER, FLORENCE
 O'CONNOR, MARGARET MARY
 LANCASTER, ALICE MARIE

SISTER MARY ANITA STOUTENBURGH
 KIRCHNER, MARGARET ADELAIDE
 SMITH, ESTHER CHRISTIANA
 FAHEY, MARY CATHERINE
 ZERHUSEN, ANNA LOUIS
 MCHALE, MARY LAWRENCE
 DOUGHERTY, ANNA MARGUERITE
 KRAMER, MARGARET MARY
 O'NEILL, BERNICE GERTRUDE
 MAHER, ALICE MARY
 DAILEY, MARGARET MARY
 COLLINS, MAE CAROLINE
 LAUGHLIN, MARY ELIZABETH

MULCAHY, CATHERINE FRANCES





UNIVERSITY OF MARYLAND
BULLETIN
OF THE
SCHOOL OF MEDICINE

Vol. IX

OCTOBER, 1924

No. 2

THE CORRECTION OF FACIAL DEFORMITIES

EDWARD A. LOOPER, M.D.,
Baltimore, Md.

One of the most common causes of facial deformity is some disturbance in the alignment of the nasal structures. This may be the result of a hereditary condition such as inherited syphilis, producing the classical saddle nose, but most frequently the cause is some injury.

The prominence of the nose makes it susceptible to much abuse. In early life, while the nasal bones and cartilage are soft, a slight fall or blow on the nose may alter the framework so that the foundation is laid for a marked disfigurement in later life. In every nasal injury, even though it appear trivial at the time, a careful examination of the nose should be made. At this time fractures can be easily reduced and the deflected cartilage placed in proper alignment.

Severe nasal injuries generally demand immediate attention, but it is truly surprising how little attention has been given to the importance of the accurate reduction of nasal fractures until very recent years.

Many people today are forced to endure the embarrassment of disfigurement, simply because a nasal injury was neglected at the time. The cosmetic feature is not merely to be considered, but most important of all is the disturbance in function, which is usually associated.



CASE 1.—BEFORE.



CASE 1.—AFTER OPERATION.



CASE 1.—Shows an extreme deformity of the nose which was produced by a blow from a sledge hammer. The nasal bones were badly fractured and displaced. The nasal septum was out of line and breathing was greatly interfered with. Under a general anesthetic the fracture was easily reduced and the nose was brought into proper position. This was retained by intra-nasal packs and an external splint with the result shown, and perfect function.



CASE II.—BEFORE.



CASE II.—AFTER OPERATION.

CASE II.—A loss of the nasal septum and extreme flattening of the nose resulting from inherited "hues." Two unsuccessful attempts had been made to correct the deformity before the patient was sent to me. A rib graft was inserted, which elevated the depression, improving the appearance even more than is shown in the photograph.



CASE III.—BEFORE.

Case III.—Marked deformity resulting from "lues," were inserted with the result shown.



CASE III.—AFTER OPERATION.

Considerable cartilage had been lost by absorption. New grafts



CASE IV.—BEFORE.



CASE IV.—AFTER OPERATION.

CASE IV.—A broad and depressed nose, the result of an injury in early life, which was greatly improved by a cartilaginous graft.



CASE V.—BEFORE.

CASE V.—An injury produced a greatly deviated septum with some external deformity. After operation normal nasal function was restored and appearance improved.



CASE V.—AFTER OPERATION.



CASE VI.—BEFORE.

CASE VI.—Patient was injured in an automobile accident, as shown in photograph. Three plastic operations were necessary to obtain the result shown.
605 Park avenue.



CASE VI.—AFTER OPERATION.

AN ANALYTICAL STUDY OF EXTRACRANIAL ANEURISM OF THE INTERNAL CAROTID ARTERY. A POSTSCRIPT*

By NATHAN WINSLOW.

From the Surgical Department of the University of Maryland.

On pages 121 to 125, inclusive, of the Bulletin for January, 1924, I have set forth in tabular form the essential features of 20 cases of extracranial arterio-venous aneurism between the internal carotid artery and the internal jugular vein. Prior to the outbreak of the World War only four examples of this lesion had been placed on record, viz., Joret (1840), Giralaldès (1854), Keen (1894), and Janssen (1903). 'Tis true that Callander (1921) cites a case treated by Cushing in 1905. The remaining 15 cases belong to the period embraced by the World War and the vast majority of them occurred in soldiers as the result of injuries received in battle. More recently (1924) Rouvillois has recorded another example of this injury. I bring it to your attention on account of the extraordinary mechanism of its production. The patient, a soldier, age 22, was admitted to the hospital, July 31, 1916. Four days before, the concussion of a bursting shell had thrown him violently to the ground, but without leaving the slightest trace of a wound. Following the accident deafness and vertigo resulted, which phenomena with headache and severe pain in the right side of the neck brought the man to the hospital. On admission examination revealed behind the angle of the right jaw a slight tumefaction which beat in harmony with the pulse. At the same site the palpating finger felt a thrill and the listening ear heard a souffle. When the mouth was opened inspection disclosed a slight, non-pulsatile bulging in the right tonsillar region. The mass, however, when touched, was found to be animated by beats. There was a moderate exophthalmos, but unassociated with pupillary or motor disturbances. Deglutition was but little affected. The voice was

*First instalment, Bulletin, School of Medicine, University of Maryland, 1922, vii, 84.

Second instalment, Bulletin, School of Medicine, University of Maryland, 1923, vii, 125.

Third instalment, Bulletin, School of Medicine, University of Maryland, 1923, vii, 171.

Fourth instalment, Bulletin, School of Medicine, University of Maryland, 1923, viii, 88.

Fifth instalment, Bulletin, School of Medicine, University of Maryland, 1924, viii, 119.

Sixth instalment, Bulletin, School of Medicine, University of Maryland, 1924, viii, 154.

slightly husky. There was paralysis of the right vocal cord, but no respiratory embarrassment. In spite of a most painstaking examination of the head, of the neck, of the mouth, and of the pharynx failing to disclose the slightest trace of a wound which might have served as the portal of entry for a projectile, and in the presence of a negative radiograph the condition was diagnosed as an arterio-venous aneurism between the large vessels in the upper part of the neck. As time passed the subjective symptoms gradually but steadily became more and more aggravated. Rouvillois, therefore, proceeded on September 5, 1916, to the extirpation of the involved vessels by doubly ligating the internal jugular vein above and below the lesion, the common and external carotid arteries below and the internal carotid artery above the sac, which was firmly attached to the pharynx. Besides an independent arterial pouch there was a distinct conduit connecting the internal carotid artery to the internal jugular vein. The postoperative course was remarkably benign; the patient experienced immediate and gratifying relief from the humming in the ear and the annoying souffle which had prevented all sleep. Except for a temporary paresis of the right half of the palate, no paralysis followed the operation. The exophthalmos improved slowly, as did the huskiness of the voice. June 3, 1924, the man was enjoying excellent health.

Almost without exception arterio-venous aneurisms are caused by penetrating foreign bodies, such as bullets, pieces of shell and knives. The above described case is a notable exception. After a most careful search of the literature I could find only one case of a like nature. This was reported by Gasne (*Paris Chirurgical*, 1920, xii, 212). The patient, a soldier, was injured, March 12, 1916, by the concussion of a shell, as evidenced by the absence of a wound and failure to find embedded in the tissues by an X-ray examination any foreign body. There was bleeding from the left ear, hemi-crania, aphonia, embarrassed respiration and a tumefaction in the left carotid region. When admitted to the hospital, March 21, the entire left carotid and parotid regions were noticeably swollen. To the touch the involved area felt doughy, rather than fluctuating, and exhibited neither expansion nor pulsation. Behind the angle of the jaw was a tumor as large as an apricot, round, limited, and animated by expansile beats and the seat of a distinct souffle. Examination of the pharynx was difficult owing to the pain produced on opening the mouth. The entire left wall of the pharynx was bulging. Gradually the swelling diminished. However, the aneurism preserved its characteristic features until April 6.

when it began to fade away. By April 23, there were no more beats or bruit, and the swelling had almost entirely disappeared. The man was discharged on May 31, 1916. Six months later he was again at the front. Though ignorant of the patient's future course, Gasne regarded the swelling as an example of a rupture of a large vessel from the shock of a bursting shell which terminated in a spontaneous cure. He thought the vessel involved was one of the carotids. A somewhat similar case has been reported by Ruttin (*Beitr. z. Anat., Phys., Path. u. Ther. des Ohres, der Nase u. des Halses*, 1919, xi, 224). A soldier was admitted to the hospital, January 17, 1918, for bleeding from the left ear, nose and mouth. In November, 1917, while serving on the Italian front, he was buried by the explosion of a shell. Since 1914 he had had a discharging left ear, which was rendered worse by the accident. On entrance the left ear was discharging a quantity of foul pus and the man complained of severe pain in the head. After admission the hemorrhage from the nose, mouth and ear renewed itself on several occasions. Therefore, on January 18, 1918, a radical mastoid operation was undertaken. On January 20, there was renewed bleeding from the mouth and nose, and the man died. An autopsy showed the presence of an aneurism of the internal carotid artery in the knee of the carotid canal, the wall of which was eroded.

In the *Bull. et mém. de la Soc. méd. d. hôp. de Paris*, 1924, 3. s., xlviii, 906, under the title of *Anevrisme arterio-veineux carotido-jugulaire gauche et le syndrome radiologique d'insuffisance ventriculaire droite*, Leconte et Oury have described, as they believe, an analogous observation, but of the common carotid artery. The most remarkable feature of their case is the length of time which had elapsed between the receipt of the injury and the appearance of the vascular disease. In addition the case is another example of dilatation of the right ventricle, rather than of the left, following arterio-venous fistulae in the several regions of the body. The patient, a male, age 31, was seen by Laubry, May 9, 1924, for dyspnoea and distressing buzzing in the left side of the face. He had always been well until 1922. In 1917, however, he had received a bullet wound in the right cervical region. According to his statement the wound was very superficial and the projectile was easily extracted. Cicatrization occupied a few days only. It was further learned that the man at the time of the injury had suffered a severe concussion and had lost consciousness. From 1917 to 1922 he had led an absolutely normal life. In 1922, after any effort, he began to experience some shortness of breath. For two years this was practically

the only symptom. At first it was transitory, but finally led him to discontinue all work. More recently he had had attacks of vertigo, and on one occasion a syncope of short duration. Some weeks ago another symptom had appeared, viz., an annoying sensation in the left cervical region, associated with an intermittent buzzing in the left ear and rhythmical pulsations in the head. Examination of the precordial and left cervical regions left no doubt as to the cause of the trouble. In close proximity to the left sterno-clavicular articulation, the examiner felt an intense thrill, heard a loud murmur of systolic intensification, and perceived a decidedly abnormal bulging in the course of the cervical vessels with a minimal arterial expansion. Fluoroscopy disclosed a decided bulging in both right chambers of the heart. An electrocardiogram, however, did not show anything abnormal in the tracings. The Wassermann test was negative, as was the remainder of the examination. Although the only hope for relief held out to the patient was operation, he refused to avail himself of the chance thus offered.

Of the cases previously reported, 17 were operated upon and 3 were not. All of the latter died. In the operative series there was not a single death, notwithstanding the multiplicity of methods employed. The case reported by Lannois and Patel as successful later had a recurrence. The patient, a male, age 22, was wounded August 26, 1914, by a piece of shell. The fragment entered the neck behind the right mastoid process and lodged in front of the atlas a little to the right of the mid-line. As a result of thrill, auditory disturbances, bruit, right lingual and right laryngeal paralyses, an arterio-venous aneurism was diagnosed and the following operation was undertaken on April 22, 1915: (1) Obliteration of the right lateral sinus by a transmastoid tamponading; (2) ligation of the right common carotid artery just below its bifurcation; (3) ligation of the right internal jugular vein; (4) extraction of the piece of shell. The immediate results of the operation were excellent. The subjective and physical phenomena disappeared and the patient returned to active service. In 1917, vertigo and general malaise developed. On re-examination seven and one-half years after the operation, there was a diffuse tumefaction of the right half of the face, which resembled a large angioma; marked dilatation of the veins at the angle of the jaw and forehead and large pulsating venous lakes in the submaxillary region with a blow of systolic intensification. The patient complained of a heaviness in the head and a transitory congestion. The blood pressure, 25/150, indicated a leakage in the arterial system. Despite

the application of three ligatures, two venous and one arterial, the external carotid had permitted the re-establishment of the aneurism. Leriche advised operation in spite of the technical difficulties on account of the rapidly developing cardiopathy in this type of case, but Patel hesitated to follow the suggestion in the face of the danger to the cerebral circulation.

Berard in discussing the above observation (Lyon. Chir., 1923, xx, 341) reported a case of arterio-venous aneurism he saw in 1916, at Paris, involving the internal jugular vein and the external and internal carotid arteries near the origin which was first treated by ligation of the common carotid artery and the internal jugular vein. The operation afforded some months of amelioration, when suddenly, following an effort, the signs of arterio-venous aneurism recurred. The condition was relieved by extirpating the sac and by the ligation of all of the contributory vessels. Haberer reports the cure of an arterio-venous aneurism of the internal carotid artery and the internal jugular vein by a quadruple ligation of the vessels and the extirpation of the sac. The patient, a soldier, wounded August 28, 1914, presented a wound of entrance on the left side of the face and of exit on the right side of the neck. At the time of the receipt of the injury there was a free hemorrhage of short duration. Weakness developed in the left extremities, with the presence of dizziness and general headache. There was a whirring swelling extending downward from the angle of the right jaw to the middle of the sterno-cleido-mastoid muscle, below which the carotid pulsed normally; paralysis of the right sympathetic nerve and damage to the right vagus nerve.

The cases of Patel and Berard illustrate the possibility of the re-establishment of the circulation in these aneurisms after a simple ligation of the vessels at fault. Therefore, whenever possible the removal of the sac as exemplified by the cases of Haberer, Rouvillois, and as a secondary procedure by Berard, should be the method of choice, unless a restorative aneurismorrhaphy is practicable (Bier; LeFort and Official History of the Great War, London, 1922, Vol. ii, page 237), when the latter course is preferable on account of the lessened liability to interference with the cerebral circulation.

A noteworthy feature of this series is the almost uniformly excellent results obtained by operative relief. Of the 18 cases so managed, 17, or 94.44 per cent., were cured, and 1, or 5.56 per cent., had a recurrence of the aneurism. In turning to the three cases left to the beneficent influences of nature, a less agreeable picture presents itself to view, viz., a mortality rate of 100 per cent.

I shall bring this study to a close with the observation that to Keen belongs the credit not only of being the first to operate upon an extracranial arterio-venous aneurism of the internal carotid artery, but also of being the first to obtain a cure.

A—Cases operated upon, by whom and result:

- Keen: *Med. and Surg. Reporter*, Phila., 1894, lxx, 380, cured.
 Janssen: *Kiel*, 1903, p. 11, cured.
 Haberer: *Wien. klin. Wochscr.*, 1914, xxvii, 1477; also *Arch. f. klin. Chir.*, 1916, cvii, 662, cured.
 Gilson-Hermann: *Jour. Belge de Chir.*, 1914, xiv, 71; quoted by Lenormant, *Jour. de Chir.*, Paris, 1921, xvii, 138, cured.
 Bland-Sutton: *British Jour. Surg.*, 1915, iii, 490, cured.
 Bier: *Deut. med. Wochscr.*, 1915, xli, 122 and 123, cured.
 Lannois et Patel: *La Caducée*, 1915, xv, 127; also *Patel, Lyon Chir.*, 1923, xx, 341, recurred.
 Dufourmentel: *La Presse médicale*, Paris, 1917, xxv, 50, cured.
 Ortenburg: *Muench. med. Wochscr.*, 1917, lxiv, 237, cured.
 LeFort: *Bull. de l'Acad. de Méd.*, Paris, 1917, 3.s., lxxviii, 376, cured.
 Soubeyran: *Rev. gén. de clin. et thèra.*, 1917, xxxi, cured.
 Suchanek: *Arch. f. klin. Chir.*, 1918, ex, 682, cured.
 Gault: *Congrès français d'oto-rhino-laryng.*, xxxi; quoted by Lenormant, *Jour. de Chir.*, Paris, 1921, xvii, 138, cured.
 Cushing in Callander: *Johns Hopkins Hosp. Repts.*, 1921, xix, 301, cured.
 Heuer in Callander: *Johns Hopkins Hosp. Repts.*, 1921, xix, 302, cured.
 * * *: Official History of the Great War—Medical Services—Surgery of the War, Lond., 1922, Vol. ii, 237 and 243, 2 cases, both cured.
 Rouvillois: *Bull. de l'Acad. de Méd.*, Paris, 1924, 3.s., xci, 705, cured.

B—Cases not operated upon:

- Joret: *Gaz. méd. de Paris*, 1840, 2.s., viii, 457, died.
 Giraldès: *Bull. Soc. de Chir. de Paris*, 1854, v, 70, died.
 DeRaffele: *La Riforma Medica*, Napoli, 1920, xxxvi, 345, died.

As this article goes to press two new examples of aneurism involving the extracranial portion of the internal carotid artery have found their way into print. Castex, *Annales de Méd.*, Paris, 1924, xvi, 138, is the reporter and he refers to two cases of aneurism of syphilitic origin in the extracranial part of the internal carotid. In his article entitled *Contribut. a l'étude des anevrismes de la carotide interne*, he says: "As to the treatment antisyphilitic, Winslow neglects it and has not made the least mention of it." As far as I could determine, but few of the patients affected with this aneurism gave any antecedent history of lues and those were not benefited by antisyphilitic medication. In so far as Castex's experience is the opposite and his results most gratifying, I include the histories of his two cases for the benefit of those interested in the medicinal treatment of this malady.

CASE 1.—A female, age 46, widow, 10-para, of which three were abortions, consulted Castex in October, 1920, for pain in the left parotid region, accompanied by systolic bruit in the left ear. A pharyngeal tumor pushed the left tonsil to the median line. The swelling was spherical in outline, pulsatile and on palpation soft, elastic and expansile. In front of the ear and behind the angle

of the jaw there was also a tumor animated with beats and expansion and the seat of a souffle. With a finger in the mouth and another on the neck, he felt very active expansion. When the common carotid artery was compressed, the volume of the mass materially diminished and bruit and expansion disappeared, all of which returned immediately when the compression was released. X-ray did not furnish any information. In 1917 she had been treated by Lanari for syphilitic aortitis. With these facts in hand he diagnosed the condition as an aneurism of the extracranial portion of the internal carotid and advised active antiluetic treatment, rest in bed, ice locally, light compression and injection of gelatine, under which measures there was a most gratifying amelioration of both the objective and subjective symptoms. In November, 1923, the aneurism was half its original size and scarcely perceptible on inspection, both internally and externally. In the neck one felt a hard resistance without beats or expansion, which furnished on auscultation a double souffle.

CASE 2.—Female, age 45, nurse, English, unmarried, consulted Castex first July 29, 1921, for a swelling in the right parotid region which since its appearance in 1915, had increased and pulsated, accompanied by a constant systolic noise in the right ear and more and more pharyngeal disturbance. Examination showed syphilitic stigmata, aortitis, and a condition in the right parotid and right faucial regions which he diagnosed as an aneurism in the extracranial course of the internal carotid of syphilitic origin. The right parotid region was the site of a visible swelling. Behind the angle of the jaw and in front of the ear was a diffuse tumefaction which pulsated. It was resistant and to touch imparted a systolic thrill. On auscultation a very harsh bruit was heard. The temporal pulse was normal. The right inferior region of the pharynx was the seat of a spheroid tumor which displaced the tonsil towards the left. It was indefinite in outline and the size of a mandarin. On palpation it was soft elastic, pulsatile and expansile. With a finger in the mouth and another on the neck, an eccentric pulsation was observed. The pulsation, the expansion, the souffle and the volume of the tumor were considerably abated by compressing the primitive carotid, to quickly return when the pressure was discontinued. Pressure on the internal carotid diminished the thrill in this vessel, but did not affect the temporal pulse. An X-ray examination of the neck was negative. There were no sympathetic, hypoglossal, glossopharyngeal, vagus or spinal accessory disturbances. Under rest, ice locally, injections of gelatine, and mercuric iodide for three months, there was a marked amelioration of both the subjective and objective symptoms. By the intermittent use of this treatment the patient was in November, 1923, both subjectively and objectively cured. The aneurism was half its original size, to sight it was non-pulsatile and on palpation it was only slightly pulsatile and feebly expansile, and its consistency was considerably increased.

Castex justified this plan of treatment on the grounds of (1) the disastrous results attached to surgical intervention in this type of aneurism and (2) the known etiology in these two cases.

Inasmuch as the medicinal treatment of these aneurisms has met heretofore with so little success, the gratifying results obtained by Castex, if substantiated by other observers, is indeed welcome news, as operative intervention up to now is confronted with a mortality of 20 per cent., but before operative interference is supplanted by non-surgical means, more medicinal cures must be furnished. In view of the disasters reported when sole reliance was placed upon non-operative means, no cures and 9 deaths in the 14 cases attributed to spontaneous origin, I maintain Castex is, indeed, a bold man to have depended upon medicinal measures only.

EDITORIAL

On June 23, 1924, the writer had the pleasure of attending the meeting of the New York State Branch Alumni, the combined meeting of the Alumni of the Baltimore Medical College, College of Physicians and Surgeons and the University of Maryland, held at Utica, N. Y.

Utica is situated in a very beautiful part of the State of New York and the surrounding country reminds one very much of our own Western Maryland.

During the afternoon before the meeting Dr. E. G. MacFarland of Utica showed me the surrounding country, particularly the town of Clinton, N. Y., where Hamilton College is situated. This is a beautiful old school amid most delightful surroundings.

The meeting which was held on the evening of June 23 was a delightful affair, attended by those whose names appear below. Addresses were made by many of the Alumni and the writer conveyed the good wishes of the Faculty of the University to the Alumni.

The New York branch of the Alumni Association is active and intensely interested in the development of the University. They are a group of active, aggressive, successful practitioners and specialists. It will be an excellent thing for the University of Maryland when the other groups of Alumni show the same active and intelligent interest in medical education, particularly as it relates to their own university, as these men of Central and Western New York.

List of the Alumni present at the meeting is attached.

J. M. H. ROWLAND, Dean.

UNIVERSITY OF MARYLAND, NEW YORK STATE BRANCH, ALUMNI MEETING, JUNE 23, 1924, UTICA, N. Y.—FORT SCHUYLER CLUB

Fred. C. Sabin, U. of M., 1921	Little Falls, N. Y.
Myles B. Sharkey, U. of M., 1915	Syracuse, N. Y.
G. Perry Ross, U. of M., 1915	Skaneateles, N. Y.
A. R. Morse, B. M. C., 1904	Oxford, Md.
Herman J. Haberer, P. & S., 1906	Utica, N. Y.
T. B. O'Neill, B. M. C., 1901	Ilion, N. Y.
Milton E. Gregg, B. M. C., 1896	Mottville, N. Y.
Leon P. Jankiewicz, B. M. C., 1906	Utica, N. Y.
Louis Wheeler, B. M. C., 1901	Tully, N. Y.
E. W. Carr, B. M. C., 1902	Lyons, N. Y.
Linn C. Beebe, B. M. C., 1895	Hamilton, N. Y.
Howard D. MacFarland, B. M. C., 1910	Rome, N. Y.
Erwin G. MacFarland, B. M. C., 1908	Utica, N. Y.
George H. Dill, B. M. C., 1901	Utica, N. Y.
Percy C. Cripps, B. M. C., 1907	Buffalo, N. Y.

W. J. R. McFarland, B. M. C., 1897.....	Syracuse, N. Y.
W. D. Peckham, B. M. C., 1897.....	Utica, N. Y.
W. Porter Miller, U. of M., 1917.....	Syracuse, N. Y.
A. B. Santry, U. of M., 1896.....	Little Falls, N. Y.
L. F. Cole, U. of M., 1916.....	Utica, N. Y.
D. U. Gould, B. M. C., 1905.....	Sherburne, N. Y.
Samuel W. Sweet, U. of M., 1922.....	Utica, N. Y.

Lest ye forget."

This is a simple reminder that we are still receiving subscriptions to the Burt J. Asper Fund. R. A. Bonner, M.D., class of 1912, writes under recent date: "Inclosed please find my check for \$5 for the Burt J. Asper Fund. I am ashamed that I am so late, but when I think of the other alumni nearer home, who are even later than I am, I don't feel so badly about it. The great trouble with the alumni of the dear old University of Maryland is that we will not support anything that benefits our Alma Mater. The University of Maryland has one of the proudest past histories of any school in America, and if we want to maintain that history we must have money. If we ourselves do not contribute our mites, it is unfair to ask the State or any other individual to help us out. So here's to good luck for the Asper Fund."

Since the last announcement the following subscription has been received:

R. A. Bonner, class of 1912, 51 West Main street, Waterbury, Conn.....	\$5.00
Previously announced.....	170.00
Total	\$175.00

ALUMNI NOTES

The Southern Medical Association meets this year at New Orleans, November 24-27.

At the meeting in Washington last year the Medical Alumni members of the University of Maryland held a banquet. It is hoped the same thing will occur at New Orleans.

That was a splendid affair. This year it should be bigger, finer and so firmly established that it is recognized as a permanent institution and one of the attractions at the Southern Medical Association meeting.

Get together, boys, and make this year a banner year for the University of Maryland. Details of the above affair will be published later.

Please Note: Mr. Alumnus, the University of Maryland

School of Medicine has not had a "flunk" before a State Board in three years. Some record. Some class. Some school. You are a part of this. It is your school, so help in every way that is possible to keep up the fine work.

The official body of the Alumni Association has created this year a scholarship known as the Medical Alumni scholarship. This is given to a worthy student annually and will pay the tuition of the successful candidate in full for the school year.

The award was made this year to George Basil, Jr., of Annapolis, a second year man.

Founder's Day banquet will be held this year at the Hotel Rennert on December 18. This is a great innovation. Each year it is growing bigger and more interesting. Last year we had present three hundred alumni. This year we expect four hundred. You, Mr. Alumnus, are already counted in the number.

Members of the Alumni Association will be gratified to learn that Dr. J. Holmes Smith, Jr., 1208 Maison Blanche, New Orleans, La., has been appointed chairman of the University of Maryland Reception Committee for the eighteenth annual meeting of the Southern Medical Association, to be held in New Orleans, November 24 to 27, 1924. He is a prominent member of the New Orleans's profession and a son of the late lamented and well beloved Dr. J. Holmes Smith, Sr., for many years professor of anatomy in the University of Maryland. The appointment of Dr. Smith insures a most successful alumni reunion. He will leave no wheel unturned to make the visiting alumni's sojourn in the metropolis of the Gulf most pleasant and enjoyable.

The superintendents of the University and Mercy Hospitals cordially invite out-of-town alumni when stopping off in Baltimore to visit these institutions. They will consider it a pleasure and a privilege to show you what is going on. If you make yourselves and your wants known, they will be only too glad to serve your interests. They want you to feel that you are welcome.

DEATHS

Dr. Henry J. Miller, Philadelphia, Pa., P. and S., class of 1883; aged 69; died, March 20, 1924.

Dr. Julius J. Hilton, Greensboro, N. C.; class of 1886; aged 63; died, August 31, 1924.

Dr. James Henry Finnessy, Rochester, N. Y.; B. M. C., class of 1890; aged 59; was killed March 26, 1924, in an automobile accident.

Dr. James Trumbo Hering, Baltimore, Md.; class of 1885; died suddenly, March 29, 1924.

Dr. Samuel Gilman Glover, Greenville, S. C.; class of 1910; aged 41; died, March 22, 1924.

Dr. Joseph Abram Cox, Wheeling, W. Va.; B. M. C., class of 1896; aged 65; died suddenly, March 31, 1924, of heart disease.

Dr. Washington C. Claude, Annapolis, Md.; class of 1875; aged 71, for many years a practicing physician of Annapolis; died, September 4, 1924. He served twenty-five years in the Medical Corps of the Maryland National Guard, and was a medical officer in the United States Army during the Spanish-American War. He was a son of the late Dr. Abram Claude, who served several times as Mayor of Annapolis.

Dr. S. Marion Steele, Ingram Branch, W. Va.; P. and S., class of 1886; aged 65; died suddenly, August 11, 1924.

Dr. Samuel S. Simpson, Claredon, Va.; P. and S., class of 1885; aged 61; died, May 14, 1924, of cirrhosis of the liver.

Dr. Frank T. Briggs, Bristol, Ver.; B. M. C., class of 1897; aged 58; died, June 28, 1924, as the result of a carbuncle and diabetes mellitus.

Dr. David Preston Wyson, Port Chester, N. Y.; Washington University School of Medicine, class of 1872; aged 71; died, June 25, 1924, of angina pectoris.

Dr. William Taliaferro Brown, Burnt Mills, Md.; University of Virginia Department of Medicine, Charlottesville, class of 1891, and P. and S., class of 1892; aged 60; died, September 1, 1924, of heart disease.

Dr. Albon S. Fichtner, Johnstown, Pa.; P. and S., class of 1882; aged 66; died, August 24, 1924, of mitral regurgitation.

Dr. Presley C. Ramsey, Alliance, Ohio; P. and S., class of 1882; aged 66; died, May 11, 1924.

Dr. George Henry Brown, New Windsor, Md.; class of 1864; aged 81; died, June 23, 1924, of pneumonia. He served in the Union Army during the Civil War as a member of the Medical Corps.

Dr. Enel H. Lyon, Bahama, N. C.; class of 1903; aged 49; died, July 6, 1924, following a long illness.

Dr. Ernest Whittier Lowe, Fremont, N. H.; B. M. C.; class of 1898; served in the M. C., U. S. A., during the World War; aged 49; died, July 13, 1924.

Dr. Frederick W. Hill, Fairmont, W. Va.; P. and S., class of 1894; aged 60; died, July 8, 1924, following a long illness.

Dr. Thomas Kent Barber, Granite, Md.; class of 1865; died, July 11, 1924, of senility.

Dr. Charles W. Hunt, Brevard, N. C.; P. and S., class of 1880; aged 65; died, July 20, 1924.

Dr. Henry M. Argabright, Clare, Va.; P. and S., class of 1879; aged 68; died, June 17, 1924, of diabetes mellitus and myocarditis.

Dr. John H. Chew, Chicago, Ill.; class of 1863; president and emeritus professor of medicine at the Chicago Polyclinic; aged 82; died, August 14, 1924, of cancer and of the prostate.

Dr. Florence Augustine Sullivan, Haverhill, Mass.; B. M. C., class of 1900; on the staff of Hale Hospital; aged 48; died, July 15, 1924.

Dr. Charles William Ray, Chester, Ver.; P. and S., class of 1880; died, July 31, 1924, of heart disease.

Dr. John I. Pennington, Baltimore, Md.; class of 1869; aged 62; died, July 24, 1924. He was one of the oldest and most widely known general practitioner of Baltimore. He was of the type of days gone by, suave, courteous, kindly, an old-time family doctor.

Dr. Andrew T. Crossett, Gibsonburg, Ohio; P. and S., class of 1897; aged 62; died, July 9, 1924, following a long illness.

Dr. Richard Fitz Harris Gundry, Catonsville, Md.: P. and S., class of 1888; formerly assistant physician at the State hospitals at Dayton and Athens, Ohio; founder of the Richard Gundry Home, Catonsville; member of the Board of Directors of the Spring Grove Hospital; died, August 5, 1924, consecutive to a nephrectomy in June; aged 58. He was a brother of Drs. Alfred T. Gundry and William P. Gundry.

Dr. Joseph Marshall Husted, Woodstown, N. J.; B. M. C., class of 1897; aged 49; died, suddenly, April 29, 1924, of cerebral hemorrhage.

Dr. George Francis Dodge, Athol, Mass.; B. M. C., class of 1906; aged 52; died, April 28, 1924, following a tonsillectomy.

Dr. Thomas J. Ward, Ruxton, Md.; class of 1877; a Confederate veteran; died, April 26, 1924, of senility; aged 79.

Dr. Lot H. Hughes, Dennison, Ohio; P. and S., class of 1882; aged 72; died, April 25, 1924; of cerebral hemorrhage.

Dr. Henry Boyden Rowe, Mt. Airy, N. C.; class of 1910; aged 39; died, May 16, 1924, following a long illness.

Dr. Charles Jenson, Ephraim, Utah; P. and S., class of 1898; aged 54; died, May 11, 1924, of pneumonia.

Dr. William H. H. Campbell, Owings Mills, Md.; class of 1869; a Confederate veteran; aged 85; died, May 29, 1924, of senility.

Dr. Joseph Vandeventer, Leesburg, Va., class of 1869; aged 77; died suddenly in May, 1924.

Dr. Edward Fitzgerald, Bridgeport, Conn.; P. and S., class of 1884; aged 63; died, May 4, 1924, following a long illness.

Dr. Joseph Powley, Altoona, Pa.; P. and S., class of 1892; aged 58; died, June 3, 1924, of heart disease.

Dr. W. Arlett Parvis, Socorro, New Mexico; class of 1905; aged 41; died, May 27, 1924.

Dr. A. Edward Tussey, McConnellstown, Pa.; class of 1883; aged 65; died, May 29, 1924.

Dr. Henry H. Jones, Dunmore, W. Va.; class of 1867; a Civil War veteran; aged 84; died, May 11, 1924.

Dr. Joseph Albert Seligman, Baltimore, Md.; class of 1892; aged 58; died, June 13, 1924, of heart disease.

Dr. Charles James Maxwell, Hinsdale, Mass.; B. M. C., class of 1909; aged 39; died, June 4, 1924, following a long illness.

Dr. Walter Tison, Cedartown, Ga.; P. and S., class of 1893; aged 53; died, March 23, 1924, of food poisoning and atrophic cirrhosis of the liver.

Dr. George Henry Philip Cole, Washington, D. C.; P. and S., class of 1879; aged 68; died, March 8, 1924.

Dr. Alber Frank Dunsmore, Barnesboro, Pa.; B. M. C., class of 1900; served in the M. C., U. S. A., during the World War; aged 49; died, February 28, 1924, of leukemia.

Dr. Charles Fitzsimmons Davidson, Easton, Md.; class of 1888; aged 59; died, April 16, 1924.

Dr. William Miller Roberts, Baltimore, Md.; class of 1896; Major United States Army, retired for physical disability March 21, 1917; aged 51; died, April 15, 1924.

Dr. Edward Willis Finch, Petersburg, Va.; class of 1868; Confederate veteran; aged 78; died, April 3, 1924, of senility.

Dr. Alexander Bear, Richmond, Va.; class of 1860; Confederate veteran; aged 83; died, April 2, 1924, of senility.

Dr. Jesse F. McCracken, Guilford College, N. C.; P. and S., class of 1893; aged 65; died suddenly, March 31, 1924.

Dr. R. D. Patterson, Liberty, N. C.; B. M. C., class of 1897; was killed April 3, 1924, in an automobile accident.

BOOK REVIEWS

Selections From the Works of Ambroise Pare. With Short Biography and Explanatory and Biographical Notes. By Dorothea Waley Singer. 1924. London, John Bale Sons and Danielsson, 83-91 Great Titchfield Street.

Pare is one of the pathfinders of the surgical profession. His three greatest contributions to our art were the discovery that gunshot wounds are not poisonous and therefore do not require the application of burning oil but are best healed by soothing applications; secondly, the doctrine that hemorrhage after amputations should be arrested not by the cautery, but by ligature, and thirdly, his advocacy of podalic version before delivery in cases of abnormal presentation. Although all of these procedures were already known and had on occasion been practiced, they were only adopted into current practice through his example, precepts and teachings. These and many other important contributions as well as incidents in the life of Pare are delightfully unfolded in this little booklet. In these days of stress, hurry and bustle, we of the medical profession are prone to forget the many obligations we are under to the old masters, accepting the present high state of development as a matter of course. It will therefore repay all of us to tarry awhile in our onward rush and carefully peruse this charming little book. Many problems of medicine still remain a dark mystery and perhaps the discouragements and vicissitudes of Ambroise Pare as unfolded in the pages of this monograph may prove an inspiration to someone now engaged in solving the perplexing problems of our day.

What Every Mother Should Know. By Charles G. Kerley, M. D., Consulting Pediatricist, Fifth Avenue Hospital and the Babies Hospital, New York City. Second Edition, Revised. 1924. Paper, 50 cents. New York, Paul B. Hoeber.

This book does not displace the physician, it does, however, put in the hands of the mother concise information concerning the management of her offspring. Simply and in unvarnished language it supplies instruction concerning the sleep requirements, clothing, the bath, the diet, both natural and artificial, food formulas for well babies, and a host of other helpful hints. Both mothers and nurses will find it a very useful little pamphlet.

UNIVERSITY OF MARYLAND
BULLETIN
OF THE
SCHOOL OF MEDICINE

VOL. IX

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No. 3

PIONEER WORK OF THE ALUMNI ASSOCIATION OF
THE MEDICAL SCHOOL OF THE UNI-
VERSITY OF MARYLAND.

FURNISHING PHYSICIANS FOR THE REMOTE RURAL DISTRICTS
OF THE STATE OF MARYLAND.*

By WILLIAM J. TODD, M. D., Mt. Washington, Md.

As Necrologist for the years 1921 and 1922, I reported the deaths of 210 members of our Alumni Association. The graduates from the medical department during the same years numbered 105, showing a loss in the membership of the Alumni Association of 105.

Our Secretary, William S. Love, appreciating the import of these figures, asked for the statistics I had collected relative to the disappearing of the country doctor in the United States. Some of these statistics were used by your Committee in making a plea in behalf of the Medical School of the University, and of the University Hospital, before the State Legislature during its past session. And, again, Doctor Love has followed the example of "Oliver Twist" and has asked "for more," insisting that I present them to you, tonight.

My endeavor will be to show, with few figures and less words, the need of physicians in the rural districts of the State of Maryland, and the efforts that the Alumni Association of the Medical Department of the University of Maryland is making to supply this want, and, incidentally, to establish a precedent for the medical schools of other States.

*Read at the Founder's Day banquet celebrating the 117th Anniversary of the University of Maryland, December 19, 1924.

In 1900, of the population of the State of Maryland, 49.7% (591,206) was urban, and in 1920, 60% (869,422) was urban,—an increase of the urban population of 47% in the ten years. During the same period of time the increase of the urban population in the United States was 76%.

(These figures were taken from the New York World Almanac, edition of 1923.)

In the State of Maryland in 1906 there was one physician to 656 inhabitants, in 1920 there was one physician to 617 inhabitants. In the Counties of Maryland in 1906 there was one physician to 872 inhabitants, in 1923 there was one physician to 806 inhabitants. In Baltimore City in 1900 there was one physician to 494 inhabitants and in 1923 the ratio was one physician to 516 inhabitants.

You will note that there is a less number of physicians in both Baltimore City and the Counties of Maryland in the later years, in proportion to the number of inhabitants than was at the beginning of this century. I will treat of this phase of the question in a paper to be read later.

In the following classification I have endeavored to show where the scarcity of physicians is in the State of Maryland.

In one county there is an average of one physician to 658 inhabitants. (Washington County.)

In four counties there is an average of one physician to 700 to 800 inhabitants. (Carroll, Frederick, Montgomery, Talbot.)

In four counties there is an average of one physician to 800 to 900 inhabitants. (Anne Arundel, Calvert, Cecil, Kent.)

In five counties there is an average of one physician to 900 to 1,000 inhabitants. (Allegany, Harford, Howard, Queen Anne's, Worcester.)

In one county there is an average of one physician to 1,044 inhabitants. (Prince George.)

In three counties there is one physician to 1,100 to 1,200 inhabitants. (Baltimore, Charles, Dorchester.)

In one county there is an average of one physician to 1,295 inhabitants. (St. Mary's.)

In two counties there is an average of one physician to 1,300 to 1,400 inhabitants. (Caroline, Somerset.)

In one county there is an average of one physician to 1,922 inhabitants. (Garrett.)

In one county there is an average of one physician to 2,236 inhabitants. (Wicomico.)

Baltimore County averages one physician to 1,184 inhabitants.

In May, 1924, Dr. J. S. Bowen, State Health Officer for Baltimore County, at my request, gave me the following statistics. After he had eliminated all those physicians classified as "specialists," and those physicians who are on the staff of the medical institutions of Baltimore County, there remained but 55 physicians (two of this number are colored) doing general work and known as "the family physician" or by another term, "the general practitioner."

Dr. Bowen estimated the population of Baltimore County, at this time, to be about 85,000. The number of inmates in the different institutions of the sick and for others, I have not been able to ascertain.

Deputy State Health Officer, Samuel J. Fort, M.D., at my request, gave me the following information regarding the Sixth Sanitary District, comprising Charles, Calvert and St. Mary's Counties, over which he has jurisdiction.

Charles County has 10 practicing physicians.

St. Mary's County has 10 practicing physicians.

Calvert County has 9 practicing physicians.

In the District named by Dr. Fort, there is an area of about 1,000 square miles and a population, 1920, of 44,061,—with 29 "family physicians" or "general practitioners";—an average of one physician to 1,519 inhabitants.

The following is the pioneer work the Alumni Association of the Medical School of the University of Maryland is doing to rectify the lack of physicians in the remote rural districts of the State of Maryland.

The Clarence and Geneva Warfield Scholarships.

(Valuation \$300.00 each.)

There are five scholarships established by the Regents from the income of the fund bequeathed by the will of the late Dr. Clarence Warfield. ✓

Terms and conditions:—These scholarships will be available to students of any of the classes of the course in medicine. Preference is given to students from the counties of the State of Maryland which the Medical Council may from time to time determine to be most in need of medical practitioners.

A student receiving one of these scholarships must agree that after graduation and one year's internship, to undertake the practice of medicine for a term of two years in the county to which he is accredited or in a county to be selected by the Council of Medicine. In the event that he is not able to comply with the condition—requiring him to practice in the county to which he is accredited by the Council, the money advanced by

the Regents shall be refunded. A bond in the amount of \$1,200.00—the expense of which is to be borne by the Fund, must be filed by the student accepting one of these scholarships for the faithful performance of the conditions imposed.

(Bulletin of the School of Medicine, 1924-1925.)

Miss Eleanor S. Cohen has by the gift of \$5,000.00 established a scholarship in the Medical School of the University of Maryland which will be available to students in any of the classes of the course in medicine with the same conditions as the "Warfield Scholarships."

This Alumni Association some years ago established a scholarship available to a student of medicine. The scholarship is not limited to any particular state.

Lately, Walter B. Brooks, Esq., of Baltimore, established a scholarship for four terms; under the same terms and conditions as the "Warfield Scholarships."

From the above statements it will be seen that in the offer of these seven scholarships by the Board of Regents of the University of Maryland, an effort is made to pave the way—to place young men and women in the rural districts of Maryland where they are most needed.

With this movement and the building of small hospitals in the counties of Maryland (I am responsible for this last suggestion), it is hoped that young physicians will be drawn from the cities, and the older physicians now in the counties will be induced to remain.

ERECT DISLOCATION OF THE SHOULDER: WITH THE REPORT OF THREE CASES.*

BY FRANK S. LYNN, M.D.

From the Surgical Department of the University of Maryland.

When the frequency of dislocations of the shoulder is considered and the number of erect dislocations of the joint reviewed, by comparison the number of the latter is indeed small and the incidence rare.

This dislocation is a variety of subglenoid dislocation and was first called attention to by Middledorf in 1859. At that time he reported two cases and had the advantage of necropsy on one. His work was further supplemented by experiments on cadavers by his assistant, Scharm. To these men, therefore, belongs the credit not only of first directing the attention of the profession to this dislocation but also of first giving us the pathology. From that time up to the present the writer has been able to collect 31 cases including the three making the subject of this report.

ETIOLOGY

The ages of the patients range from 21 to 60 years. If the patient is above 60 there is usually a fracture because of the brittleness of the bone, and if younger than 20, an epiphyseal separation rather than a dislocation. For the actual production of the luxation, violent force is necessary but when it occurs the arm is usually abducted or extended and the forearm pronated.

"Direct or violent force applied to the shoulder from above has been the determining factor in two cases" (Maurel).

The part played by the structure of the shoulder joint is interesting in revealing the pathology and is one of the chief signs. The shoulder joint is protected on all sides by bony and muscular structure, except at its lower boundary, which is weakest. The glenoid cavity is arched above by the acromion process in front externally, and behind by heavy muscles, but there is nothing below to support the head of the bone and it is easy to see why the rent occurs in this part of the capsule.

PATHOLOGY

The work done at autopsy on the few cases that succumbed, has been supplemented by work in the dissecting room. The head is always found against the side of the chest, there is a

* Extracted from *Surgery, Gynecology and Obstetrics*, 1924, July, pages 51-55, Vol. XXXIX.

separation of the capsule from the humerus in its upper part, with the supraspinatus and infraspinatus muscles torn away. At times there has been a partial rupture of the subscapularis and pectoralis major. Injury to the axillary vessels, while it might be expected, has not occurred to any serious degree. Nerve injury, however, has been more serious and permanent.

SYMPTOMS

There are three cardinal symptoms seen in this dislocation: (1) elevation of the arm; (2) fixation in this position; and (3) pain increased by any attempt to lower it. The forearm is usually flexed and resting on top of the head. The fixation of the arm in this position is explained by the tenseness of the anterior and posterior parts of the capsule, i.e., the part in front of and behind the rent through which the head passes. The long head of the triceps retains the head of the bone in this position.

CASE REPORTS

The writer feels that the rarity of the condition justifies the reporting of the following cases.

Case 1. (1914). H. R., male, age 62 years, entered the hospital complaining of an injured shoulder. The injury was sustained at the factory in a fall over a truck when the right arm and shoulder were twisted. The following note was made on admission: Pain is excruciating and no movement is permitted. Patient says he cannot move arm to side and that this is the first time he has had any severe sickness or injury. He felt perfectly well until injury was sustained. On entrance patient seems in great pain and discomfort. Right arm is held up at an obtuse angle from the body with forearm extended. Movement produces great pain. There is considerable deformity and quite a fold at the normal position of head of humerus, the head being below and anterior to the glenoid cavity. No crepitus is elicited. Examination is otherwise negative.

Impression: Subglenoid dislocation of the humerus of the erect type. The X-rays show a marked subglenoid dislocation with no fracture. Without ether, reduction was attempted but was unsuccessful. Under ether anesthesia the dislocation was reduced by traction upward and the arm was immobilized with a crinoline bandage.

Nine years after the injury the patient is well and has very good use of the right shoulder. There is no nerve injury. Motions are good in all directions. He has had no further trouble in this shoulder.

Case 2. (1921). S. P., male, age 21 years, was in a motor cycle accident a short time before admission. When he came in his right upper extremity was projecting upward, parallel with the side of the head. There was a moderate amount of pain but any attempt to bring the arm down greatly increased the pain. The head of the humerus could be felt below the glenoid cavity. The X-ray confirmed the diagnosis of sub-glenoid (erect) dislocation of the shoulder. Without an anesthetic, by slow, gradual traction upward, the head was felt to slip in the glenoid cavity and the patient was able to move the shoulder joint. The member was immobilized for two weeks and the patient's recovery was complete, with no nerve injury.

Case 3. (1924). P. R., male, age 28 years. While playing baseball, and running for bases, tripped and slid with upper right extremity projecting forward and abducted. He suddenly experienced pain in right shoulder and when picked up was unable to lower right arm to side of chest. When I saw him the right arm extended upward parallel with side of neck and head, the right forearm was flexed at elbow and the hand was supported by the left. Any attempt to lower the right upper extremity increased the pain. The head of the humerus was found below the glenoid cavity. The case was at once recognized as an erect dislocation of the shoulder. Under brief gas anesthesia by upward traction of the right arm and forearm and with an assistant pressing on the head of the humerus in axillary space, the dislocation was easily reduced. Subsequent X-ray examination showed a slight tearing away of greater tuberosity of the humerus. At the present time patient is still wearing an immobilization dressing because of the complicating fracture.

CONCLUSIONS

Violent force is not always necessary to produce this form of dislocation. The position of the arm in a large measure influences its occurrence. There is considerable damage to the capsular ligament and to the muscles attached to the upper end of the humerus in all cases. Occasionally we meet with nerve injuries. Reduction by upward traction of the arm has been easy in the majority of cases. Reduction by the ordinary means has usually been unsuccessful. Naturally, the occurrence is more common in males. Between the right and the left shoulder, the number is about evenly divided. There is only one recorded bilateral case, that of Murard (1920).

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 Gregoire (Prost); 1909; 1 case.
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Editor's note:—Since the publication of this article, Bernardbeig and Cherry (Presse med., Paris, 1924, xxxii, 149 and abstracted in Arch. of Surgery, Chicago, 1924, ix, 470) have reported two cases of this rare form of dislocation. From experimental work on the cadaver, they conclude that the position results from a position of extreme abduction and internal rotation of the arm. Avulsion of the attachment of the muscles inserted into the greater tuberosity also appears to play an important part. Reduction in the author's cases was readily accomplished by traction upward on the arm in the axis of the limb, with direct upward pressure on the humeral head.

EDITORIAL

THE DAVID STREETT SCHOLARSHIP FUND

On the death of Dr. David Streett some of his friends attempted to establish a memorial to him in the form of a scholarship. For some years the fund has been lying idle and accumulating by the yearly interest alone. It has now reached a total of \$500.00. It seems a shame that the remaining amount to make this fund available is not in hand. \$2,500.00 are still lacking. If the completion must await the yearly interest increments, many years will pass before it will be available for use. We are, therefore, making an appeal to the friends of Dr. Streett to send in their contributions to Dr. Horace Davis, Treasurer, Baltimore, Maryland.



De nouveaux.

For more than two years the Bulletin has been soliciting subscriptions to the Burt J. Asper Fund. The purpose of this memorial is twofold—(1) the honoring of a distinguished alumnus; (2) the securing of literature for the library. As the compass is to the mariner, so is good literature to the student and the physician. Books and journals are tools without which those engaged in the study or in the practice of medicine are lost. To date the appeal has fallen more or less upon deaf ears. A dollar contribution from each alumnus would net a very considerable sum, an amount quite sufficient for the purposes for which the testimonial was created. Since the last announcement the following subscriptions have been received:

Dr. Myrton B. Raynes, 42 W. Emerson St., Melrose, Mass.	\$1.00
Dr. Kivy Pearlstine, class of 1906, Charleston, S. C.	1.00
Previously announced	175.00
Total	\$177.00

COMMUNICATION

MEDFIELD STATE HOSPITAL,
HARDING P. O., MEDFIELD, MASS.

To the Members of the Class of 1900. Baltimore Medical College (now the University of Maryland):

My object in writing the members of our class is not only to inform you, but also to stimulate you to take an active interest in the Twenty-Fifth Reunion of the Class of 1900, Baltimore Medical College (now the University of Maryland), which is to occur at Baltimore in June 1925.

You are aware that the Class of 1900 graduated a total of 61 members, all of whom may be located by referring to the American Medical Directory, except Dr. E. T. Khairallah, Alexandria, Egypt. Eight members are deceased, as indicated on the enclosed graduation list.

You will no doubt ask after reading this letter, "Why such haste? This is only 1924!" I realize what can happen before the spring of 1925; but if you were one of those who attended the reunion May 31, 1911 at Baltimore, you no doubt heard every one remark that the notification was too short. Perhaps you were even one of those who could not come because you did not receive the official notice in time.

The time to prepare is now; so begin to plan your work at once to enable you to take your vacation in June 1925, so as to be on hand for the reunion. You will then have no excuse to

offer. Turn this letter over to your wife, and let her do your planning, and I feel sure when the time for the reunion arrives both you and your wife will be present.

Class reunions at first are taken very lightly. Finally, they shade off in color. Later, as the years advance, they look more serious. The first questions asked are: "Who's here?" "Whom have you met?" and "Who will never come again?" The answers have a power to thrill a man beyond all words.

A curious thing happens as time passes. You will notice the touch of gray in Dr. Smith's, Sullivan's, Krumbine's or Good's hair, but not in yours; or if it is there you had not noticed it. It is always the other fellow on whom a little whitening frost has fallen.

You are puzzled, at first, to know what has happened to Doctors Parker, Hood or Winterode. They have the same ringing voice, the same big-hearted hand grasp. But the Doctor Parker, Hood or Winterode you were thinking of was a trifle different; no gray on his temples. The most noticeable features are that the latent characteristic traits which were beginning to sprout in that class of 1900, have now grown dominant.

You suspected they would, but many did not detect these sources of coming changes. The returning class (1925) as men are very radically different in character from the boys of 1900. You will like the change in some; they have grown better. You may resent it in others, for you are sure they are hard, shrewd to sharpness, having lost warmth by time.

For days after you return you will fall off in reveries, pondering the changes which mere time makes in character in all except yourself. You will say you have not changed. No? Ask other people.

They are grand teachers, those old white heads. But the grandest teacher is the Old Class itself.

Now, as a final effort I wish to ask you to commence the very moment you receive this letter to make plans to be present at the Twenty-Fifth Reunion of Our Class, which will occur in June 1925, and which will be held at the University of Maryland.

I wish to see you, and trust you want to see me. You surely want to see your room-mate, or some other member of your class. Now don't you? Think it over.

Your classmate,

G. ALLEN TROXELL.

MEMBERS OF THE CLASS OF 1900 OF THE BALTIMORE
MEDICAL COLLEGE, NOW THE UNI-
VERSITY OF MARYLAND

- Arnold, Guy F., 1375 Monroe St., N. W., Washington, D. C.
 Bacevicze, Anthony Matthew, 161 Franklin St., Elizabeth, N. J.
 Baldwin, Marcus Elmore, Fort Pitt Hotel, Pittsburg, Pa.
 Beaulieu, Francis Xavier, 357 Bay Street, Taunton, Mass.
 Brooke, Roger, Jr., Lieut. Col., M. C., U. S. A., Panama, C. Z.
 Buffalo, J. S., Garner, N. C.
 Burroughs, George M., Danielson, Conn.
 Burt, Edward Daniel, Lincoln, N. H.
 Callagham, Thomas, *deceased*.
 Casto, Parley Casper, St. Joseph, Illinois.
 Crawley, E. G., *deceased*.
 Chausse, Joseph A., 1836 Purchase St., New Bedford, Mass.
 Cochrane, Charles S., Martins Ferry, Ohio.
 Dare, Frank T., Wellsburg, W. Va.
 DeWeese, John M., *deceased*.
 Doble, Eugene, Presque Isle, Me.
 Dundon, Arthur H., 55 Somerset St., Plainfield N. J.
 Dunsmore, Albert F., *deceased*.
 Dupee, Edward Wilson, *deceased*.
 Ellenbrock, C. E., *deceased*.
 Ensor, Wilmer C., Cockeysville, Md.
 Eyestone, Albert G., Gibsonburg, Ohio.
 Fahrenbach, George W., Bernville, Pa.
 Fain, Adolph, address not known.
 Fernald, Fred., Nottingham, N. H.
 Freeman, Elmer B., 412 Cathedral St., Baltimore, Md.
 French, W. K., Concord, N. H.
 Good, Benjamin F., Millersville, Pa.
 Gordon, Mark, 321 Stone Avenue, Brooklyn, N. Y.
 Gray, Ralph E., address not known.
 Hamilton, George L. A., 104 S. Cummings St., Los Angeles, Calif.
 Hanaford, Howard A., Newport, N. H.
 Hood, M. Bowman, 626 N. Gilmore St., Baltimore, Md.
 Kell, Elmer A., Rawlins, Wyo.
 Khairallah, E. T., Alexandria, Egypt.
 Krumbine, George., Ashville, Pa.
 Kunkelman, Donald R., 406 Washington Rd., Pittsburgh, Pa.
 MacCallum, F. E., Pulaski, N. Y.
 Mace, Charles H., Huntington, Mass.
 Maney, John J., 90 Lawrence St., Lawrence, Mass.
 Marshal, J. L., *deceased*.
 Miller, Jared Homar, Johnson Building, Los Angeles, Calif.
 Milot, Wilford F., 117 Pine Street, Attleboro, Mass.
 Molter, H. I., *deceased*.
 O'Brien, Augustus M., 157 West State St., Sharon, Pa.
 Newell, Harry W., Toledo, Washington.
 Paider, Julius George, 349 E. 72 St., New York.
 Parker, Leonard M. C., 825 N. Fulton Ave., Baltimore, Md.
 Reynolds, Arthur A., *deceased*.
 Schneider, Charles A., 694 Clinton Ave., Newark, N. J.
 Seegar, John King B. E., 1529 Park Ave., Baltimore, Md.
 Sickler, Parke C., *deceased*.
 Smith, F. W., *deceased*.
 Smith, Lawrence C., Lawrenceville, Pa.
 Sullivan, Florence A., 61 Columbus Ave., Haverhill, Mass.
 Tonry, Reginald, 414 E. North Av., Baltimore, Maryland.
 Troxell, George Allen. Harding, Mass.
 Webster, George, 213 Main St., Southbridge, Mass.
 Winterode, Robert P., Crownsville, Maryland.
 Woolf, Herman T., 43 St. Andrew's Place, Yonkers, N. Y.
 Yates, Carlyle Kayson, address not known.

Filed July 15, 1924

ITEMS

The Bulletin is indebted to Dr. W. H. Smith for the following report:

At the 18th Annual Meeting of the Southern Medical Association held in New Orleans, November 24-27, 1924, 40 alumni of the University of Maryland registered at the booth provided by the Alumni Association for the purpose, and 24 attended the University of Maryland banquet. Dr. J. Holmes Smith, Jr. and Dr. Block were indefatigable in their efforts to make the stay of the visiting alumni as pleasant and as profitable as possible. The success of the banquet was entirely due to the efforts of these two men. The Bulletin on behalf of the Faculty of Physic and the entire alumni body desires to convey to these men its sincerest appreciation of their hospitality and to thank them for their many courtesies extended the visiting University of Maryland alumni. The chairman of the section of medicine was Dr. Turner Wootten, class of 1899. Dr. E. A. Looper was elected secretary to the laryngological section for the ensuing year. Dr. Maurice Pincoffs made several addresses outlining the policies and plans and aims of the University and also read a paper before the section on medicine upon Abscess of the Lung which was very favorably commented upon. It was surprising to see the loyalty of the Southern alumni. They are all intensely interested in the welfare of the University and delighted to receive any information of the progress of their alma mater. They repeatedly expressed the wish that more University of Maryland men would present papers before their Association. Especially do they desire communications from the heads of departments. The next meeting of the Southern Medical Association will be held in Dallas, Texas. Our far Southern alumni expressed the fervent hope that the forthcoming programme would contain more University of Maryland men as active participants than heretofore.

Dr. Charles Augustus Young, class of 1914, was awarded the degree of Master of Medical Science by the University of Pennsylvania, June 20, 1923. He majored in ophthalmology and his thesis was entitled "Electro-Thermophore (Schahan) in the Treatment of Corneal Ulcers."

On Monday, August 25, 1924, the first meeting of the recently incorporated Alumni Council of the University of Maryland was held at the Medical School Building, Lombard and Greene Streets, Baltimore, and officers elected for the coming year.

As arranged, two representatives from each of the schools

of the University in Baltimore, and an equal number from College Park, were invited as follows:

PHARMACY-----	Mr. R. E. L. Williamson Dr. Charles L. Meyer
LAW-----	Judge Wm. H. Forsythe, Jr. Mr. John E. Magers
NURSES-----	Miss Lillian K. McDaniel Mrs. Harry Fleck
MEDICINE-----	Dr. Robert L. Mitchell Dr. Charles Bagley, Jr.
DENTISTRY-----	Dr. J. Ben Robinson Dr. Horace Davis
COMMERCE-----	Mr. M. A. Clemens Mr. J. Rollin Otto

COLLEGE PARK ALUMNI ASSOCIATION:—Messrs. W. P. Cole, Jr., H. C. Byrd, Walter R. Mitchell, Philip R. Robb, John N. Mackall, W. D. Groff, J. J. Carlin, Charles W. Sylvester, M. C. Davis, Henry C. Whiteford, Benjamin Watkins, F. B. Bemberger.

After adopting the charter and plan of organization, the following officers were elected:

President-----	Mr. W. P. Cole, Jr.
First Vice President-----	Dr. Robert L. Mitchell
Second Vice President-----	Mr. John N. Mackall
Secretary-----	Dr. Charles Bagley, Jr.
Assistant Secretary-----	Mr. H. C. Byrd
Treasurer-----	Dr. J. Ben Robinson
Assistant Treasurer-----	Mr. W. D. Goff.

Members of the present Council are to serve for one year. In addition to these, the Charter provides that the chairman of each county Alumni Association which may be organized and the chairman of any units outside of the State will also be entitled to membership in the Council. Arrangements are now being made to organize the county groups under the provision that not less than 25% of the graduates of the institution located in that particular geographical section should be enrolled in the subsidiary organization. The President has appointed a committee of five to supervise and assist the organization of these county groups.

When the Council is finally completed, the Alumni will have a strong and effective force, representing both the schools from which they were graduated and their geographical units. It can do considerable toward educating the public about the University and aiding in its upbuilding. This present organization is the successor of the General Alumni Association which was formed in 1903 and which continued until the time of the war, when it fell into desuetude because many of the doctors and graduates went into the service. The need, however, of some method for co-ordinating the interests of various

alumni groups has been keenly felt and discussed and simply had to be met.

All alumni are invited to help make the new organization a success.

Dr. Theodore W. Schaefer, class of 1880, of Kansas City, Mo., has an article in *American Medicine*, 1924, n. s., xix, 147, entitled "Bioclimatology: The Effects of Climate, Temperature and Seasons Upon the Nutrition of the Different Races of Mankind."

Dr. F. C. Schlutz, Minneapolis, Minn., class of 1902, has been appointed chief of the Pediatric Department and Professor of Pediatrics at the University of Minnesota Medical School on a full time basis. He replaces Dr. Rodda who held a temporary appointment since the resignation of Dr. Pirquet who has returned to Vienna.

Dr. F. C. Bayne, class of 1901, has sold his home, 208 E. University Parkway and has moved to Riderwood, Maryland.

The Alumni Association of the medical school of the University of Maryland held its annual Founders Day dinner December 19, 1924. This day, one hundred and seventeen years ago the General Assembly of Maryland chartered the Medical College of Maryland which was in 1812 by legislative enactment rechartered under the name of the medical school of the University of Maryland. Since the day the medical school opened its doors it has never failed to hold a yearly commencement. As far as institutions go in America it has led a long and honorable career being the fourth medical college in point of age in the United States. As at present constituted the present medical school is the result of several mergers, namely the old University of Maryland medical school, the College of Physicians and Surgeons, the Washington University School of Medicine and the Baltimore Medical College, the graduates of all of which institutions joined in the celebration. There were 115 men present. Dr. Robert L. Mitchell the president of the alumni association introduced Dr. N. P. Barnes, of Washington, D. C., as toastmaster. Dr. Barnes is a graduate of the old Baltimore Medical College and professor of medicine in the medical school of Georgetown University. Dr. Robert W. Johnson, formerly professor of surgery in the Baltimore Medical College gave a brief outline of its history, Dr. Harry Friedenwald spoke of the early days of the College of Physicians and Surgeons and Dr. Randolph Winslow, emeritus professor of surgery in the University of Maryland discussed its origin and traced its history down to its merger with the Maryland State College of Agriculture. Other speakers were Drs. Todd, W. H. Smith and President A. F. Woods of the

University of Maryland. The historical talks were illustrated with stereoptican views of former buildings and some of the former professors. Those who were present had a thoroughly delightful evening and all left with a much better idea of the inestimable service these schools had rendered the city of Baltimore, the State of Maryland and the Nation. In conclusion let us hearken to the words of Kipling:

"It aint the individual, nor the army as a whole,
But the everlasting teamwork of every blooming soul"

That will put the University of Maryland on the map.

The following alumni are located in Dallas, Texas:

- C. M. Grigsby, P. and S., class of 1893, 2704 McKinney Ave.
- G. M. Hackler, class of 1891, 4125 Junius Street
- J. Frank Hall, P. and S., class of 1897, 4119 Cedar Spring Rd.
- J. O. McReynolds, P. and S., class of 1891, 4105 Live Oak St.
- L. B. Miller, P. and S., class of 1891, 309 N. Washington Ave.
- S. L. Terrell, P. and S., class of 1895, 2811 Forrest Ave.
- H. G. Walcott, B. M. C., class of 1891, 3308 Oak Lawn Ave.

Dr. H. R. Bell, 3608 Sixteenth Street, San Francisco, writes:

"Though far away I am still with you in spirit. I am from Virginia but registered from California where I returned after being graduated with the class of 1879. I have been in active practice here since that time. Since graduating I have visited the old school twice and took a post-graduate course under Professor Chisolm. I believe Professor Tiffany was the last of my professors to pass away. Now I would be pleased to know of three of my class-mates, if still living and if not, when did they die. All three were graduated with my class, viz; Drs. S. K. Wilson, John Powell and William B. Ryder.

In reply to this query the Bulletin finds according to the American Medical Association Directory that Dr. Wilson is located at Tilghman, Maryland; Dr. Powell at Smithville, Bastrop County, Texas, and Dr. Ryder at Owings Mills, Maryland.

Dr. Clarence C. Tolleson, class of 1914, has opened offices for the practice of medicine and surgery at 1114-1118 Pacific Southwest Building, Long Beach, California.

Dr. Washington Waters Stonestreet, class of 1906, is located at 120 High Street, Morgantown, West Virginia.

Dr. Kyle McCue Jarrell, class of 1906, of Beckley, West Virginia, was a recent visitor at the University Hospital.

Dr. Nestor de Cardona, class of 1920, is Commissioner of Charities to the City of Aguadilla, Porto Rico.

The University of Pennsylvania has supplied more medical officers to the United States Army than any other medical school, with the University of Maryland occupying third place. (Jour. Amer. Med. Assn., 1923, lxxx, 1530.)

Dr. H. L. Sinskey, class of 1908, is consulting ophthalmologist, otologist, rhinologist and laryngologist to the Veterans' Bureau Hospital, Perry's Point, Maryland.

DEATHS

Dr. William Lloyd Thompson, Sheboygan, Wis.; P. and S., class of 1913, aged 51; died suddenly, October 5, 1924, of heart disease. He was formerly a member of the State Board of Medical Examiners, and president of the Board of Education.

Dr. Liston L. Johnson, Fletcher, N. C.; P. and S., class of 1874, aged 73; died, October 2, 1924, following a long illness.

Dr. William Archibold Bradsher, Roxboro, N. C.; class of 1904, aged 47; died, September 17, 1924, of endocarditis.

Dr. Daniel J. Rush, Philadelphia, Miss.; P. and S., class of 1888; aged 64; died, August 9, 1924, of ulcer of the stomach.

Dr. Francis Michael Aloysius O'Sullivan, Lowell, Mass.; P. and S., class of 1905; aged 42; died recently of tuberculosis.

Dr. Luther Carroll Corbin, Passaic, N. J.; B. M. C., class of 1894; aged 63; died, September 14, 1924.

Dr. Franklin A. Bushey, Greencastle, Pa.; class of 1861; Civil War veteran; aged 83; died suddenly, June 26, 1924, of heart disease.

Dr. Francis Wayland Larison, Lambertville, N. J.; P. and S., class of 1885; aged 63; died, September 4, 1924, following a long illness.

Dr. Luther Kemp, Uniontown, Maryland; class of 1887; aged 62; died, October 7, 1924, of paralysis. He had been in attendance upon a case and was on his way home when found in his automobile on the road paralyzed and unconscious.

Dr. William L. Walraven, Charles Town, West Virginia; class of 1890; aged 63; died, August 8, 1924, of diabetes.

Dr. Barton Foote Andrews, Mount Morris, New York; B. M. C., class of 1906; aged 47; died, October 3, 1924, following a long illness.

Dr. Tom R. Kelley, Olanta, South Carolina; P. and S., class of 1883; aged 59; died, October 6, 1924.

Dr. Henry M. S. Cason, Edenton, North Carolina; class of 1899; aged 48; died, September 23, 1924, of angina pectoris.

Dr. Richard Allen Freeman, Burlington, North Carolina; Washington University School of Medicine, class of 1870; aged 78; died, September 17, 1924, after a long illness.

Dr. John T. King, Baltimore, Maryland; class of 1866; aged 80; died, December 2, 1924, from the infirmities of old age. For more than 50 years Dr. King has been one of the most prominent general practitioners of Baltimore.

Dr. Lyman W. Armentrout, Mt. Vernon, Ohio; P. and S., class of 1871; aged 79; died, October 23, 1924, of injuries received when his automobile was struck by a train.

Dr. Jeremiah P. Lawlor, Parkersburg, West Virginia; B. M. C., class of 1898; formerly demonstrator of anatomy, bacteriology and pathology in the Baltimore Medical College; aged 52; died, October 7, 1924, of cerebral hemorrhage.

Dr. Walter Colfax Matthews, Butte, Montana; P. and S., class of 1892; aged 55; died, October 6, 1924, following a long illness.

Dr. John Bernard Boucher, Hartford, Conn.; P. and S., class of 1894; aged 60; died, November 5, 1924, of heart disease.

Dr. A. Bradley Gaither, Baltimore, Maryland; class of 1889; aged 61; died, November 30, 1924, of apoplexy.

Dr. William Douglas Wells, Baltimore, Maryland; class of 1896; aged 51; died, October 25, 1924, following an operation.

Dr. Robert Alvin Marsh, Edgeville, South Carolina; P. and S., class of 1897; aged 52; was found dead, October 27, 1924, of cerebral hemorrhage.

Dr. Luther Milton Powers, Los Angeles, California; Washington University School of Medicine, class of 1877; a former instructor of hygiene, University of Southern California College of Medicine, Los Angeles; aged 71; died, October 31, 1924.

Dr. Charles Henry Jameson, Estancia, New Mexico; P. and S., class of 1884; aged 62; died, November 5, 1924, of cerebral hemorrhage.

Dr. William Griffith, Dunnellon, Florida; P. and S., class of 1877; aged 59; died, October 25, 1924.

Dr. Chester Curtis Waller, Warren, Ohio; B. M. C., class of 1898; aged 52; died, October 26, 1924.

Dr. Wesley Calvin Stick, Hanover, Pennsylvania; Washington University School of Medicine, class of 1874; aged 69; died, October 7, 1924, of endocarditis.

Dr. Thomas W. Kay, Scranton, Pennsylvania; P. and S., class of 1879; aged 66; died, October 3, 1924, of heart disease.

Dr. Matt Ransom Stevenson, Seaboard, North Carolina; class of 1881; aged 65; died, October 23, 1924, of angina pectoris.

Dr. Samuel W. Weaver, Hubbard, Oregon; P. and S., class of 1882; aged 71; died, October 10, 1924, of heart disease.

Dr. J. Sothorn Keech, Racine, Wisconsin; class of 1888; a specialist in ophthalmology, otology, laryngology and rhinology; aged 61; died, November 19, 1924, of heart disease.

Dr. Lawrence De Lancy Gorgas, Chicago; class of 1883; aged 63; died, November 26, 1924, of endocarditis and pneumonia.

Dr. William F. Pentz, Baltimore, Maryland; P. and S.; a former member of the Legislature and for 20 years with the Internal Revenue Department; aged 70; died, January 7, 1925.

Dr. Charles Bruce Boyle, Hagerstown, Maryland, class of 1869, a Confederate Veteran; aged 84; died, December 10, 1924.

Dr. E. J. Russell, Baltimore, Maryland; P. and S., class of 1897; a veteran of the Spanish American War, in which he served as a Lieutenant in the M. C., U. S. A.; aged 58; died, January 16, 1925, of bladder trouble.

Dr. Charles A. Haines, Sayre, Pennsylvania; P. and S., class of 1880; aged 67; died, in December, 1924, as a result of an injury incurred while alighting from an automobile.

Dr. Thomas W. Bailey, Greenville, S. C.; P. and S., class of 1886; aged 63; died, December 17, 1924, of intestinal obstruction following an appendicular abscess.

Dr. Richard W. Rice, New York; P. and S., class of 1909; aged 52; died, November 28, 1924, of heart disease.

Dr. Frank S. Myers, Youngstown, Ohio. B. M. C., class of 1897; aged 55; died, November 26, 1924.

Dr. Josiah J. Myers, Berwick, Pennsylvania; P. and S., class of 1886; aged 64; died, December 8, 1924.

Dr. William Francis Barry, Woonsocket, R. I.; P. and S., class of 1893; aged 52; died, December 17, 1924.

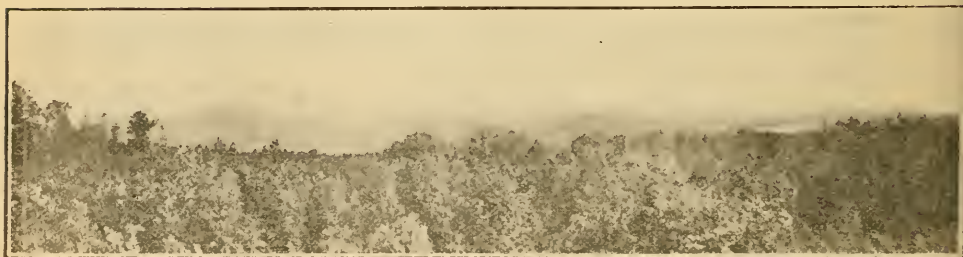
Dr. James J. Mills, Baltimore, Maryland; B. M. C., class of 1889; aged 62; died, January 2, 1925.

Dr. Harry S. Hedges, Brunswick, Maryland, formerly of Baltimore; class of 1883; resident surgeon of the Baltimore and Ohio Railroad; aged 62; died, January 4, 1925, of heart disease.

Dr. John Albert Nice, Ridgeville, Maryland; class of 1905; aged 45; died, December 25, 1924, of heart disease.

Dr. William De Blois Harris, Lynn, Mass.; P. and S., class of 1899; aged 52; died, December 8, 1924, of pneumonia and septicemia.

Dr. Lot Ridgely Wilson, Baltimore, Maryland; class of 1880; aged 60; died, November 29, 1924, following a long illness.



UNIVERSITY OF MARYLAND
BULLETIN
OF THE
SCHOOL OF MEDICINE

VOL. IX

APRIL, 1925

No. 4

UNIVERSITY OF MARYLAND
Division of Medical Extension
REVIEW COURSES FOR PHYSICIANS

June 1, 1925—June 27, 1925.

The Division of Medical Extension of the University of Maryland offers this year a series of short courses to the physicians of the State. These courses are not planned, and will not serve, to enable the practitioner to become a specialist. But it is hoped that they will meet the needs of those who wish to review the fundamental data in some field, and to inform themselves concerning recent advances in methods of diagnosis and treatment.

The duration of the courses is brief: four weeks. Each course, however, has daily meetings of from two to three hours, and there should be sufficient time for discussion and explanation during the demonstrations, and for practice in the various diagnostic procedures.

The morning courses will run from nine to eleven-thirty, and the afternoon courses from one o'clock to three-thirty or later. It will, therefore, not be possible to take more than two courses; and those who so desire may register for only one. There will, in addition, be daily clinics from eleven-thirty to twelve-thirty, in medicine, surgery, and the various specialties, which are not a part of the courses, but are open to all the physicians registered. The number of registrants for each course will be limited in order to render instruction more effective.

Information: Questions concerning the courses may be addressed to the—

*Dean of the Medical School,
University of Maryland,
Baltimore.*

Requirements for Admission: The applicant must be a registered physician in good standing. Preference will be given to physicians registered in Maryland.

Enrollment: Applications for enrollment should state the courses selected. It is suggested that such applications be made promptly as the courses will be filled up in the order that applications are received. Address—

*Dean of the Medical School,
University of Maryland,
Baltimore.*

Fees and Tuition: A matriculation fee of \$25.00 will be charged to all registrants. No additional fee for tuition will be required of physicians registered in Maryland. For those coming from other states a charge of \$50.00 for each course taken will be made.

Registration and Matriculation: Monday, June 1, 1925, 8:30 A. M., N. E. corner Lombard and Greene Streets, Baltimore.

DEPARTMENT OF MEDICINE
**DISEASES OF THE CIRCULATORY AND
 RESPIRATORY SYSTEMS**

Daily 9 A. M.—11:30 A. M.

(Limited to Six Physicians)

DR. M. C. PINCOFFS

DR. N. B. COLE

DR. C. C. HABLSTON

I—Circulatory Diseases.

Three lectures a week. Three periods a week of one and a half hours each devoted to the examination of cardiac patients in the wards and dispensaries.

The subjects will be taken up under the following headings:

1. Factors in circulatory diseases: myocardial disease; valvular diseases; arrhythmia; blood-pressure abnormalities.
2. Symptoms: physical signs: instrumental methods.
3. Clinical types of circulatory failure: congestive; vasomotor; anginal.
4. Clinical types of cardiovascular disease: rheumatic; arteriosclerotic; syphilitic; etc.
5. Therapeutic principles.

II—Respiratory Diseases.

Three lectures a week. Three periods a week of one and a half hours each devoted to the examination of patients in the wards and dispensaries.

The subject will be taken up under the following headings:

1. Symptoms of respiratory diseases.
2. The technique of physical diagnosis and the interpretation of physical signs.
3. The interpretation of roentgenograms.
4. Clinical types of respiratory diseases.
 - a. Tuberculosis of the lungs and pleura.
 - b. Acute non-tuberculous diseases: pneumonia; pleurisy; empyema; abscess; infarct; etc.
 - c. Chronic non-tuberculous diseases: bronchitis; bronchiectasis; asthma; emphysema; etc.
5. Therapeutic principles.

DEPARTMENT OF MEDICINE

CLINICAL PATHOLOGY

Daily 9 A. M.—11:30 A. M.

(Limited to Eight Physicians)

DR. S. L. JOHNSON

DR. H. J. MALDEIS

DR. L. A. M. KRAUSE

DR. WM. S. LOVE. JR.

The technique of the simpler laboratory tests will be taught. The more complicated procedures in common use will be demonstrated. The interpretation of laboratory tests and their value in diagnosis and treatment will be discussed. The course will be divided as follows:

1. Blood (Nine days)

Blood counting, making and staining of blood smears, differential counts. Coagulation time. Methods of making blood cultures: drawing blood for Wasserman. Wassermann tests. Widal. Parasitology of blood. Blood transfusion methods. The diseases of the blood-forming organs.

2. Urine (Nine days)

Review of routine urinary analysis. The simpler functional tests of kidney activity: dilution and concentration tests: phthalein excretion: blood non-protein nitrogen fractions: laboratory procedures essential for the study of diabetes: quantitative sugar: blood sugar: ammonia: CO_2 in alveolar air and serum.

3. Sputum and Nasal Secretions (Two days)

Gross examination. Bacteriology: study of stained smears: study of cultures: B. tuberculosis: B. diptheria: Pneumococci.

4. Gastric and Duodenal Contents (Two days)

Study of the vomitus: types, colour, etc. Gastric analysis after appropriate test meals, including chemical and microscopic studies. Use of the duodenal tube.

5. Feces (Two days)

Gross physical properties. Chemical methods for blood, bilirubin, urobilin, etc. Routine studies with the microscope. Parasitology.

6. Puncture Fluids

Demonstration of technic for obtaining various body fluids. Methods of examination.

DEPARTMENT OF MEDICINE

DIETETIC AND INSULIN TREATMENT OF DIABETES

Daily 9:30 A. M.—11:30 A. M.

DR. W. H. SMITH

DR. HARRY M. STEIN

Three periods a week will be devoted to the diagnosis and treatment of diabetes mellitus.

The course is planned as follows:

General considerations

Blood sugar in health and in diabetes

Symptomatology

Diagnosis

Necessary laboratory methods in diagnosis and treatment

Complications

Prognosis

Treatment: dietetic basis of all treatment

Insulin Treatment

Treatment of coma and other complications

DEPARTMENT OF MEDICINE

PEDIATRIC CLINIC

DR. CHARLES L. SUMMERS, *Professor of Pediatrics*
 DR. EDGAR FRIEDENWALD, *Clinical Professor of Pediatrics*
 DR. C. LORING JOSLIN, *Assistant Professor of Pediatrics*
 DR. W. H. INGRAM, *Associate in Pediatrics*
 DR. H. W. WARNER, *Associate in Pediatrics*
 DR. W. J. TODD, *Instructor in Pediatrics*
 DR. J. H. TRABAND, *Instructor in Pediatrics*
 DR. W. G. GEYER, *Instructor in Pediatrics*

Assistants in Pediatrics

DR. BERNARD J. FERRY	DR. F. B. SMITH
DR. CHARLES GOLDSBOROUGH	DR. H. WHITNEY WHEATON
DR. GEORGE E. WELLS	DR. H. J. DORF
DR. E. C. REITZEL	DR. H. R. LICKLE
DR. F. STRATNER OREM	DR. W. L. BRENT
DR. C. E. MACKE	DR. J. J. MCGARRELL
DR. G. A. KNIPP	DR. W. E. COLE
DR. H. A. RUTLEDGE	

COURSE IN INFANT FEEDING

Daily Afternoons

(Limited to Eight Physicians)

This course is intended for the general practitioner and those especially interested in Pediatrics who desire in a short space of time to familiarize themselves with the newer advances in infant feeding. The physicians will work daily, under instruction, in the Babies and Children's Clinic of the University Hospital, which, with a yearly attendance of 20,000 patients, affords an unusual opportunity for the observation and treatment of a wide variety of cases. Daily Ward Talks in the University Hospital will be given, thus enabling physicians to observe the care and treatment in detail of nutritional conditions more severe in character. There will be lectures and quizzes three times weekly.

The course will cover the following subjects:

1. The underlying principles of modern infant feeding.
2. Feeding problems in nutritional conditions: marasmus, rickets, pyloric stenosis, the diarrhoeas, etc.
3. Technique of infant feeding: care of the breast: bottle feeding: preparation of food mixtures: gavage: subcutaneous salt and glucose solution: intraperitoneal salt solution: proctolysis.

DEPARTMENT OF MEDICINE

GASTRO ENTEROLOGICAL CLINIC

Diagnosis of Diseases of the Gastro-intestinal Tract

Daily Afternoons

1:00 P. M.—3:30 P. M.

(Limited to Eight Physicians)

DR. T. F. LEITZ
 DR. J. H. ULLRICH
 DR. T. H. MORRISON
 DR. MAURICE FELDMAN
 DR. MILFORD LEVY

DR. JOSEPH SINDLER
 DR. Z. MORGAN
 DR. L. J. ROSENTHAL
 DR. P. F. WIEST
 DR. WAITMAN ZINN

The course will be conducted by means of:

1. Lectures and clinics on special topics.
2. Daily study of patients in the dispensaries and on the hospital wards.
3. Laboratory work.

Instructions will be offered in:

1. Methods of history recording in gastro-intestinal diseases.
2. Physical examination of the abdomen.
3. Passage of the stomach tube: test meals: gastric lavage: examination of the gastric contents.
4. Passage of the duodenal tube: drainage of the gall bladder and its significance: duodenal feeding.
5. Examination of the feces.
6. Fluoroscopic and roentgenographical examination of the gastro-intestinal tract. Interpretation.
7. Demonstration of oesophagoscopy and proctoscopy.

DEPARTMENT OF SURGERY

DR. ARTHUR M. SHIPLEY

DR. HENRY J. WALTON

DR. PAGE EDMUNDS

DR. JOS. W. HOLLAND

DR. FRANK S. LYNN

DR. C. REID EDWARDS

SURGICAL DIAGNOSIS

Daily 9 A. M.—11:30 A. M.

(Limited to Eight Physicians)

This course will be devoted almost entirely to the diagnosis of surgical conditions. Considerable attention, however, will be paid to the treatment of fractures. Minor surgical procedures will be demonstrated, such as: aspirations of the chest, infusions, treatment of minor accident conditions, etc.

From nine to ten-thirty each morning, there will be ward rounds and operations. From ten-thirty to eleven-thirty, the routine treatment of minor surgical conditions in the surgical dispensary. There will be two clinics each week, on Tuesdays and Thursdays, at eleven-thirty.

Instructions will be given also in the use of the X-ray for the diagnosis of surgical conditions.

DEPARTMENT OF SURGERY

COURSE IN MALE AND FEMALE UROLOGY
(Including Syphilis)

Daily Afternoons
(Limited to Six Physicians)

DR. W. H. TOULSON DR. J. M. HUNDLEY, JR.
DR. H. M. ROBINSON

This course will be given in the dispensaries and on the hospital wards. It will include practical work by the physicians under instruction, short lectures, demonstrations, and operative clinics. Instruction will be given in the technique of urethral injections, instillations, irrigations, catheterization, the use of sounds, filiforms and dilators. Darkfield examination for the treponema pallida, and the technique of intravenous therapy in syphilis will also be taught.

There will be demonstrations of urethroscopy, cystoscopy, catheterization of the ureters, lavage of the kidney pelvis, the use of wax tips and bulbs for the recognition of ureteral strictures and stones. The utilization of the above methods in the diagnosis and treatment of diseases of genito-urinary tract will be systematically presented.

DEPARTMENT OF SURGERY
DISEASES OF THE NOSE AND THROAT*

DR. EDWARD A. LOOPER *and Associates*

Daily Afternoons
(Limited to Eight Physicians)

In lectures, clinics and dispensary classes there will be offered a brief review of the anatomy, pathology and bacteriology of the nose and throat and a systematic presentation of the fundamental clinical features of the common diseases of the paranasal sinuses, the pharynx, mouth and trachea. The use of the laryngoscope will be taught. Bronchoscopy and laryngoscopy will be demonstrated. The interpretation of X-ray plates will be discussed. The relationship of nose and throat infections to systemic disease will be presented in some detail, and the indications for the various nose and throat operations discussed.

* By special arrangement a portion of this course may be combined with a portion of the course in Eye and Ear to furnish a brief review of both subjects.

DEPARTMENT OF OPHTHALMOLOGY AND OTOTOLOGY

DISEASES OF THE EYE AND EAR*

DR. HARRY FRIEDENWALD

DR. RANDOLPH KAHN

DR. HARVEY FLECK

DR. C. A. CLAPP

DR. J. W. DOWNEY, JR.

DR. JOSEPH I. KEMLER

Daily Afternoons

(Limited to Six Physicians)

This course will be given in the dispensary and on the wards of the University Hospital and in the Baltimore Eye, Ear and Throat Hospital. By the method of case teaching instruction will be given in the recognition and treatment of the commoner diseases of the eye and ear. The use of the ophthalmoscope and otoscope will be taught and opportunities afforded for practice in their use. The relationship of diseases of the eye and ear to systemic diseases will be illustrated so that the diagnostic value of eye and ear examinations may be appreciated.

* By special arrangement a portion of this course may be combined with a portion of the course in Nose and Throat to furnish a brief review of both subjects.

COMBINED COURSE IN OBSTETRICS AND GYNECOLOGY
(Limited to Eight Physicians)

DEPARTMENT OF OBSTETRICS

DR. J. M. H. ROWLAND

DR. L. H. DOUGLAS

DR. D. P. BOWE

DR. J. G. MURRAY, JR.

DR. MAURICE LAZENBY

DR. J. G. M. REESE

DR. EMIL NOVAK

THE PRACTICE OF OBSTETRICS

Monday, Wednesday, Friday—9 A. M.—11:30 A. M.

The course will be conducted almost entirely on the wards and in the dispensaries of the hospitals. Brief lectures will also be given. When illustrative cases are not available manikin demonstrations will be substituted.

The following topics will be systematically presented:

1. Normal and deformed pelves and foetal heads.
2. Abdominal palpation.
3. Diagnosis of pregnancy.
4. Pre-natal care.
5. Complications of pregnancy:
 1. Abortions
 2. Toxemias
 3. Hemorrhages, etc.
6. Mechanism of labor.
7. Conduct of normal labor and puerperium.
8. Care of new-born child.
9. Puerperal infection.
10. Operative obstetrics:
 1. Forceps
 2. Version and breech extraction
 3. Craniotomy
 4. Induction of labor.

COMBINED COURSE IN OBSTETRICS AND GYNECOLOGY
DEPARTMENT OF GYNECOLOGY

DR. W. S. GARDNER

DR. J. M. HUNDLEY

DR. H. BRENT

GYNECOLOGICAL DIAGNOSIS

Tuesday, Wednesday, Saturday—9 A. M.—11:30 A. M.

Lectures—Pathology—Ward Walks—Operative Clinics

The following subjects will be reviewed, and illustrated, in as far as possible, by ward and dispensary cases, and by gross and microscopic pathology:

1. Case history recording.
2. Uterine bleeding.
3. Injuries due to labor.
4. Displacements of the uterus.
5. Extrauterine pregnancy.
6. Cancer of the uterus.
7. Uterine fibroids.
8. Infections of the pelvic organs.
9. Ovarian growths.
10. Gross and microscopic pathology of the pelvic organs.

THE SURGICAL AND ANATOMICAL WORKS OF NATHAN RYNO SMITH*

By ALEXIUS MCGLANNAN, M. D.
Baltimore.

In 1825 we find Nathan Ryno Smith in Philadelphia, Professor of Anatomy in the newly founded Jefferson Medical College. The American Medical Review (1825-26), in which he shared honors with his father, is the first fruit of his literary career in that city. The Essay on Digestion had been published in New York earlier in the same year. The Philadelphia Monthly Journal of Medicine and Surgery was founded by N. R. Smith in June, 1827. Like many other journals of the time, it had a short career, but was fortunate to find a resting place the following year in a merger with the American Journal of the Medical Sciences.

In 1829, two years after he came to Baltimore, the translation of Saissy's book on Disease of the Internal Ear was published. To the translation he added an original supplement on Diseases of the External Ear. Thoroughly established in Baltimore, in February, 1830, he brought out the Baltimore Monthly Journal, which lasted one year. In this journal is published the first report of the famous Anterior Splint. (Description of an Apparatus for the Treatment of Fractures of the Thigh and Leg, by Smith's Anterior Splint.) Thirty-seven years later he sums up the history of the Splint in the little volume published by Kelly & Piet of Baltimore.

The Medical and Surgical Memoirs of Nathan Smith, published in 1831, are of great interest, because in this volume the Lithotome was illustrated for the first time. Further history of the instrument and of the operation is given by Allen P. Smith in the 1878 transactions of the Medical and Chirurgical Faculty.

The greatest of Doctor Smith's books is his quarto volume on the Surgical Anatomy of the Arteries. This book went

* Read at the Meeting of the Book and Journal Club of the Medical and Chirurgical Faculty of Maryland, January 21, 1925.

through two editions, the first in 1832, and the second in 1835. It is dedicated "To My Distinguished Friend And Former Colleague, John Eberle, M. D., Professor of Medicine in The Medical College of Cincinnati." The lithographs showing the relation of the artery are copied from Cloquet's *Anatomie de l'Homme*. The pictures were redrawn by X. X. Sweet, and the lithographs printed by Sweet & Endicott of Baltimore. The book was published by Toy & Lucas, the second edition by



NATHAN R. SMITH, M. D.

Fielding Lucas of Baltimore. The printing was by J. D. Toy. This Toy printed Gidding's *Journal* and many other medical publications. He also printed the *American Turf Register and Sporting Magazine* (1829) as well as *The Mutual Rights and Christian Intelligence*, a Methodist Journal (1828). His place of business was at the Northwest corner of St. Paul and Baltimore Streets. The *Sun-paper* was printed then on Light Street near Mercer, and the neighborhood was one of books and printers. In the preface to the first edition, especial em-

phasis is laid on the fact that in the book there is shown for the first time, diagrams indicating the relative length and diameter of the various arteries. Apparently this innovation did not prove of much value, because these diagrams are omitted from the second edition.

There is a long discussion of the process of spontaneous arrest of hemorrhage from lacerated arteries, and details of several animal experiments made to throw light on the subject are included. Of great interest is the description of a self-locking artery forceps, which could be applied with one hand. A long laudatory review of the second edition will be found in the *North American Archives of Medical and Surgical Science* (*Gidding's Journal*) for 1835. The review is signed A. L. W. Was this A. L. Warner, one of the men put in charge of the Cholera Hospitals of Baltimore in 1832?

One of the fascinations of studying old books is the opportunity to leave the special quest for an adventure into a by-way temptingly marked with the name of a former owner on the fly leaf of the book. The second edition of the *Arteries* now in the Medical and Chirurgical Library is marked with the name of George C. M. Roberts. This man was not only an excellent physican but was also a minister in the M. E. Church. He stood high in both professions. He was Professor of Obstetrics in the University of Maryland, and later Professor of Obstetrics and Diseases of Women and Children in the Washington University. He collected a museum which became the property of the Medical and Chirurgical Faculty. He was an active member of the Society, served on many committees, and was one of the editors of a journal published by the Faculty between 1839 and 1843. He enjoys the distinction of having been President of the Faculty for the longest term on record. He was President from 1859 until his death in 1870. Doctor Dunbar filled out his unexpired term and the next election made Nathan R. Smith his successor (April 20, 1870).

In 1869 Doctor Smith, then 72 years of age, published *Legends of the South*, a little book of whimsical tales about the White Sulphur, the Hot and some other Springs of Virginia. The sprightly humor of these stories gives an impression of

Doctor Smith very different from that which comes from the picture of the grim man, with thin compressed lips and stern demeanor shown in the familiar portrait.

Of his many Journal articles I wish to invite attention to this one in the North American Archives of Medical and Surgical Science for August, 1835. It is the report of an Extirpation of the Thyroid Gland, and there is a lithograph to show the size and character of the lesion. The tumor was dissected out and the description of the manner in which the bleeding was controlled shows how difficult and formidable was this operation. Eighty years afterward the President of the Medical and Chirurgical Faculty made his presidential address on the Operative History of Goitre. Commenting on this case of Doctor Smith's, Doctor Halsted says: "When we consider that the patients were unanaesthetized and that the surgeon, until many years after Nathan R. Smith's day, was without forceps, and had to rely chiefly on aneurysm needles, hooks and the pressure of fingers or sponges for the control of hemorrhage, we must concede that the most difficult task of the present day surgeon is hardly more creditable than this operation by Smith on the Thyroid Gland in 1835. My admiration for Doctor Smith, Baltimore's Emperor, has been greatly increased since reading his modest and lucid report of a case, the importance of which he could hardly have comprehended."

115 West Franklin Street.

ALUMNI, ATTENTION!

All alumni attending the annual meeting of the American Medical Association at Atlantic City, May 25-29, are requested to register at alumni headquarters. Information as regards program, banquet, etc., will be furnished at that time.

ARTIFICIAL PNEUMOTHORAX IN THE TREATMENT OF TUBERCULOSIS

REPORT OF CASES

By CHAS. C. HABLSTON, M. D.,*
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The purpose of this paper is to briefly review the treatment of tuberculosis by means of induced pneumothorax, with a few interesting historical notes and case reports.

The procedure, while by no means new, having had its origin, experimentally, at least, well over a hundred years ago, did not come into any prominent or popular use in this country until about 1912-13, in spite of the fact that an American, John B. Murphy, of Chicago, supplied the stimulus in a paper read before the American Medical Association in 1898, which resulted directly in the treatment being taken up in Europe, where it has been, and still is, widely used. Some fifteen years later, its popularity being evident in Europe, American physicians began employing the same means in assisting their tuberculous patients to recovery. In the interim, A. F. Lemke, of Chicago, and Mary Lapham, of South Carolina, with very few others, carried out the work with persistence. Today, the operation has a fixed status in the cure of tuberculosis, with its results and indications well known, and rather definitely determined, and bearing out remarkably well the theories of Carson, published in 1821, who did the original experimental work. In October of that year, Carson, of Liverpool, published a paper on pneumothorax, experimentally induced in rabbits. Finding that the animals survived and continued to live following his operative procedure, he concluded that the treatment was applicable to humans, although there is no record of his having operated upon anyone. He put forth the views, that a diseased lung, put at rest, would be under ideal circumstances to promote healing. He referred particularly to lung abscess, but also suggested that the treatment be used in tuberculosis, as according to his statements, "Tuberculosis can only be treated by mechanical means, that is, by surgical operation," basing his opinion on observation in several cases of tuberculous soldiers, who, following penetrating wounds of the chest, were clinically cured of their tuberculosis. The role played by artificial pneumothorax and thoracoplasty at the present time proves there was more than a measure of truth in his statements.

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About 1881, Forlanini, an Italian, used nitrogen gas in producing pneumothorax in the human, and published a paper on his observations.

The first real impetus was given the work by Murphy's paper in 1898, to be shortly followed by a paper by Brauer, Professor of Internal Medicine at Vienna, which was based upon Murphy's work, and which was followed by a wide use of the treatment in Europe.

In 1899, Lemke, an associate of Murphy's, read a paper before the American Medical Association, entitled "Report of Cases of Pulmonary Tuberculosis Treated with Intra-pleural Injections of Nitrogen," which was later published in the Journal of the American Medical Association, October, 1899. Lemke reported fifty-three cases so treated at that time.

From this time (1899) until 1912-13, very few clinicians in America used the treatment. Lemke, however, treated some two hundred and fifty patients, many of whom were living after a period of fifteen years.

By 1913, three hundred and eighty-four articles on the subject had been published in Europe, when the work was taken up in earnest in this country, with success, and a correspondingly voluminous literature, until the operation has become commonplace, and the type of literature changed, from articles setting forth the benefits to be derived, to reports of end results, as the treatment became an established success.

It is outside of the purpose of this paper to review the literature on this subject, as the result would be a lengthy and disinteresting report of names, titles, and dates, but reference will be made to some articles of recent date, which are of much value and importance. Inasmuch as time is the best proof of results, the papers of R. W. and R. C. Matson, and Marr Bisaillon, of Portland, Oregon, are worthy of mention. In June, 1923, these authors read a paper before the Nineteenth Annual Meeting of the National Tuberculosis Association, entitled "A Review of Six Hundred Cases of Pulmonary Tuberculosis Treated by Means of Artificial Pneumothorax during Twelve Years." The same authors published in the Tubercle, April, 1924, a paper entitled, "The Causes of Failure in the Treatment of Tuberculosis by Artificial Pneumothorax," and in June, 1924, in the American Review of Tuberculosis, "End Results in Six Hundred Cases of Tuberculosis Treated by Artificial Pneumothorax." Their results closely coincide with other authors, and reports of sanatoria to be listed elsewhere. At the Seventh Annual Meeting of the American Association for

Thoracic Surgery, at Rochester, Minn., Sidney F. Blanchet, of Saranac Lake, read a paper on Treatment of Pulmonary Tuberculosis with the Help of Artificial Pneumothorax, reporting results comparable with the Matsons.

The inducing of artificial pneumothorax is almost immediately followed by a marked decrease in symptoms, and a lessening of toxemia. With full compression or collapse of the diseased lung, cough and expectoration practically disappear, and bacilli disappear from the sputum. The patient gains in weight, and in a short time the outlook is changed from an unfavorable to a very favorable one.

A procedure as favorably reported on, and which is followed by such striking clinical improvement, immediately suggests the question as to why a greater number of cases of tuberculosis are not subjected to it. It must be borne in mind that many cases secure arrestment of their disease without operative interference, and that all tuberculous involvements of the lung do not lend themselves to this type of treatment. It is estimated that between five and ten per cent of patients presenting themselves for treatment are favorable types.

The causes of improvement following pneumothorax may be stated as follows:

1. With complete collapse of the lungs, complete rest is secured, with resultant decrease in activity of the tuberculous focus.
2. Walls of cavities are approximated, so that healing can occur.
3. Invasion of new lung tissue, largely by way of lymphatics, is terminated by compression.
4. Absorption of toxins from tuberculous focus is decreased.
5. Pleuritic adhesions are prevented.
6. Formation of fibrous tissue is favored.

As a result of the pulmonary improvement, the following clinical improvement is noted:

1. Decrease in toxic symptoms—temperature declining rapidly, frequently returning to normal with full collapse; appetite and digestion improve; usually a steady gain in body weight.
2. Cough markedly decreased.
3. Expectoration markedly decreased.
4. Hemoptysis and hemorrhage are controlled.

Indications: Many bad results, or failure to secure good results from the use of artificial pneumothorax, occur in far advanced disease, where the measure is resorted to as a last forlorn hope. Even in far advanced, bilateral disease, improvement for the time being may be obtained, an added degree of comfort is secured and life is prolonged.

Favorable indications for instituting the treatment are:

1. Any case of unilateral involvement which fails to make satisfactory progress on sanatorium treatment in a reasonable length of time.
2. Any unilateral case, which in spite of prolonged rest in bed shows by X-ray and physical signs, progressive invasion of lung tissue.
3. The appearance of physical signs or X-ray evidence of beginning cavity formation.
4. Hemorrhage.
5. In bilateral disease, provided lung involvement on the comparatively good side does not extend below 3rd rib, pneumothorax is indicated—if improvement is not satisfactory on absolute rest treatment, particularly should cavitation be present in the advanced lung.

Routine of treatment briefly stated, consists of repeated injections of nitrogen or filtered air into the pleura, until complete collapse of lung is secured. There is a difference of opinion in regard to the rapidity with which complete collapse should be attained. Some operators repeatedly inject small amounts at frequent intervals. I have personally seen no benefit follow small amounts, and in the cases to be reported, complete collapse was effected in two or three treatments. From time to time, following compression, refills of gas must be made, the interval between treatments becoming longer, and the amounts required becoming less as time goes on, the operator being guided at all times by the intra-thoracic pressure, as recorded on a water manometer. Routine rest cure should be continued for some time in conjunction with this treatment, but is very considerably shortened.

The inducing of pneumothorax is not without the element of danger, although accident rarely occurs.

Dangers of the procedure are as follows:

1. Pleural shock.
2. Air embolism.
3. Hemorrhage into pleura from tearing adhesion or injury to vessels.
4. Spontaneous rupture of lung.
5. Empyema.

End Results: Treatment should be carried out over a period of from eighteen months to two years, and in cases showing cavity, even longer. Results will vary, according to type of case selected for treatment.

Matson reports of his 600 cases after twelve years:

- 149 Clinically well.
- 84 Arrested.
- 274 Dead.

The remaining cases are grouped as favorably influenced temporarily improved or unimproved.

Blanchet reports on 100 moderately advanced cases after eleven years:

24 Dead.
6 Failing.
23 Improved.
18 Arrested.
29 Working.

Trudeau Sanatorium reports 47 patients treated by pneumothorax, with following results on discharge:

23 Improved.
24 Unimproved, in the period of 1913 to 1923.

Raybrook Sanatorium reports 30 cases treated in the past eighteen months. Results favorable, but no figures available at this date.

With the cessation of treatment, the air in the pleura is gradually absorbed, with resultant expansion of the lung, which again takes up a part, at least, of its normal function. Certainly those cases in which compression is of short duration, have a return of function, but the amount of fibrosis, resulting from long, continued compression, renders a return to functioning highly improbable.

Record of Cases: I wish to report on five cases, as representative of the various types and indications for the use of pneumothorax, with what subsequent history is available. The first case was treated by me in 1916, and represents a very favorable and urgent indication for collapse.

Case 1.—M. Y. Age 29. Laborer.

Admitted to Municipal Tuberculosis Hospital, November 14, 1916, with pulmonary hemorrhage. His temperature on admission was 99.4, pulse 100, respiration 18. He gave history of very slight cough over a period of months, but denied other symptoms until occurrence of hemorrhage. He has been working for some time in the steel mills at Sparrows Point, Md., and has lost no weight, and has noticed no inability to perform his usual day's work.

Examination showed typical signs of tuberculous infiltration of right upper lobe, extending to the 3rd rib. The sputum was markedly positive. His course was practically afebrile during his entire stay in the hospital. During the next few days, brisk hemoptysis continued, and then gradually subsided. On December 3rd, an alarming hemorrhage occurred, and immediate pneumothorax was induced.

Intra-thoracic pressure recorded, negative 5, during inspiration, on water manometer at beginning of treatment; 575 c. c. filtered air introduced into right pleura, dropping pressure to negative 3. On December 5th—525 c. c. were again injected, bringing pressure to negative 1.

December 8th—500 c. c. were introduced, pressure reading being positive 2, at end of operation, when complete collapse was erroneously judged to be present.

December 25th—575 c. c. were given, and on January 11th, 1100 c. c. At this treatment, probably because of release of adhesions and some expansion of lung having occurred in the interval, a much greater amount of air was required. The pressure being negative 3 at beginning, and being brought to positive one-half at the end. In all probability, complete collapse was secured at this time. From this time to May 18, 1917, seven refills were made, when patient stated he was well and demanded his discharge.

Condition on discharge noted as improved. Left lung clear. Right lung showed complete pneumothorax. Sputum negative.

This patient was not seen again until May, 1924, when he returned to hospital to call on his old friends. In the mean time he had married one of the hospital nurses, and has worked every day, without loss of time and without physical impairment, in the steel mills at Sparrows Point, Md.

This case was treated prior to the installing of X-ray apparatus at Bay View, and clinical findings alone were used in mapping out the lesion. The duration of treatment was short, but the result is excellent proof of what can be done with early lesions. This case had practically no toxic symptoms, but the onset with hemorrhage, the very moist character of the lesion, and recurrence of hemorrhage, were indications for inducing pneumothorax.

Case 2.—Mrs. H. L. P. Havre de Grace, Md. Housewife. Age 46.

Was seen by me December 20, 1920. Her illness dated from an attack of influenza in 1916, from which she had an unsatisfactory recovery. Her cough persisted, and ultimately a diagnosis of tuberculosis was made. She went immediately to Saranac Lake, remaining three months, and returned home in apparently good condition. For nearly three years she remained well, but suffered a reactivation of her tuberculosis in September, 1919. She remained in bed from then until January, when she was sent to Asheville for treatment. There she was a bed patient, running fever of 100 to 101 degrees F. in the afternoons, but gradually improving, following an artificial pneumothorax, which was induced on the left lung. She returned home September, 1920, and was up and about, apparently well, for two months, when fever, cough and expectoration returned. On December 15th, she was brought into University Hospital by Dr. Gordon Wilson, for study.

Examination showed extensive tuberculous involvement, with partial consolidation, left upper and lower lobes, X-ray confirming physical findings. Sputum positive. Afternoon temperature averaging 100 degrees F.

On December 20th, 600 c. c. of gas were introduced into left pleura, the negative pressure being so great when first tested that manometer could not record it. Twenty-four hours later, 900 c. c. gas were introduced, bringing pressure to neutral. She returned home the next day, and immediately took up her household duties. She has reported at gradually lengthening intervals ever since, for refills, and has considered herself normal in every respect, over a period of four years. Her weight, which was 106 on admission to University Hospital, was 125 when weighed in my office recently.

She now reports every six weeks for treatment, and barring the occurrence of pleuritic effusion in September, 1923, has had no difficulties of a physical nature.

Treatment in this case should continue for life. There is a possibility that thoracoplasty would effect a cure and obviate further treatment by pneumothorax.

Case 3.—Mrs. G. P. H. Age 30.

Seen at Woman's Hospital, March 27, 1922. She gave a history of onset of tuberculosis in 1919, followed by two years' treatment at Saranac Lake. She made satisfactory improvement for the time being, and returned to Baltimore, remaining at home, but returning to Saranac Lake for the next two summers. During the winter of 1922-23, she suffered a reactivation of her tuberculosis, with much loss of weight, afternoon fever, cough and expectoration. Early in 1923, she developed hoarseness and other symptoms of laryngeal involvement. In March, 1923, she developed perirectal abscess, and was admitted to Woman's Hospital for operation and for study of her pulmonary condition. When seen March 27th, her chart showed daily rise in afternoon temperature to 101 and 102, with considerable tachycardia.

Examination showed marked tuberculous involvement of entire right lung, and distinct, but earlier changes in the left upper lobe. Her sputum was loaded with bacilli. In spite of the bilateral involvement, it was evident that a progressive decline was inevitable on ordinary measures. On March 27th, I began treatment by artificial pneumothorax, introducing 400 c. c. filtered air. Twenty-four hours later, 400 c. c. air were again introduced. On March 31st, 450 c. c. were introduced, and complete collapse was secured on April 3rd, with an additional 600 c. c. She was returned to her home, and between April 3rd and June 7th, seven refills were done. Her temperature showed favorable decline, averaging 99.6, her general condition and nutrition improved, and on June 8th, she was able to make the trip to Colorado Springs, where Webb has been keeping up the treatment. From latest report, received two months ago, she was afebrile, had gained 18 pounds in weight, and was up and about, enjoying somewhat restricted activities.

Case 4.—M. C. Age 18. Colored. Housewife.

Admitted to Municipal Tuberculosis Hospital, March 18, 1924, with history of cough over a period of one year, but with acute progression of symptoms during the past six months, during which time her weight dropped from 140 lbs. to 86 lbs. On admission, her temperature was 103, pulse 120, respiration 24. Temperature was continuous, with some morning remission, but reaching over 102 each afternoon. Examination and X-ray showed extensive soft tuberculous involvement of entire left lung, suggesting pneumonic type, with tuberculous infiltration of right upper lobe as well. Sputum positive. March 24th, artificial pneumothorax was begun, 500 c. c. air being introduced, without affecting pressure materially.

March 25th, 500 c. c. again introduced, bringing pressure to negative 1.

March 28th, 550 c. c. pressure, negative $\frac{1}{2}$.

April 1st, 350 c. c. pressure, positive 1.

April 9th, 600 c. c. bringing pressure to neutral.

From that time to the present, refills have been done at intervals. Immediate results were marked decrease in cough and expectoration.

Temperature declined to normal within one week's time, and remained practically normal for three months. Patient gained 7 pounds, and we were elated over the improvement obtained in a practically moribund case. After a most favorable course of three months, the afternoon temperature began to rise, within ten days again reaching 101 and 102, with return of symptoms, of cough, etc., and a gradual loss of weight.

Examination shows active extension of disease in the functioning lung, and the outlook has become hopeless. This patient is still living, after a period of eight months. Her present weight is 80 pounds, and it is evident that death will ensue before many more weeks. However, I feel that although our attempts failed, she was given the only chance offered for overcoming her disease.

This case is reported to show the improvement which may be secured in far advanced disease, and the prolonging of life in comfort.

Case 5.—Mrs. B. S. W. Age 27. White. Housewife.

First seen by me August 1, 1924. She gave a history of onset of tuberculosis in Fall of 1922, for which she was sent to State Sanatorium, in May, 1923. She remained for three months, during which time her afternoon temperature averaged 101. She realized that improvement was not taking place, and requested her discharge, returning home. After three months spent at home, a time marked by progressive symptoms, she went to Trudeau Sanatorium. Her afternoon temperature continued, and evident signs of cavity appeared in left upper lobe. In April, A. G. Hahn induced artificial pneumothorax. Following four months' treatment by pneumothorax, she was discharged, and came under my care to continue the treatment. This patient reports at two week intervals for refills. She is afebrile, has no cough or expectoration, and has maintained her weight 119, since returning from the sanatorium. She appears well, and leads a normal life, with the exception of rest hours every afternoon.

This case represents a bilateral involvement, with multilocular cavitation in the advanced lung. Prior to inducing pneumothorax, the history of progressive symptoms, failure to respond to rest treatment, and evidence of cavity formation, made outlook appear hopeless. A good result is not too much to expect now. Treatment should be continued at least two years more, and while we are not yet on sure ground, we have the right to be optimistic in regard to the future.

Conclusions:

1. The use of artificial pneumothorax is of the utmost benefit in properly selected cases of pulmonary tuberculosis.
2. The greater percentage of tuberculous patients become too far advanced in disease before the treatment is instituted.
3. Pneumothorax should be resorted to whenever satisfactory improvement on absolute rest does not occur in a reasonable length of time; provided pulmonary involvement will permit of it.
4. While not a common practice, I am convinced that a wide use of pneumothorax in incipient tuberculosis will ultimately occur, with correspondingly more remarkable results than reported in advanced disease.

201 East North Avenue, Baltimore, Md.

AN EXPLANATION OF THE INABILITY OF SOME CHILDREN TO MEASURE UP TO NORMAL STANDARDS, TO MAINTAIN THE NORMAL AVERAGE OR TO ADJUST THEMSELVES TO SCHOOL DISCIPLINE.

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I shall attempt to offer an explanation for the inability of some children to acquire knowledge or to continue normal progress in spite of the efforts on the part of the teachers and the most sincere cooperation of the parents and friends, and of those anomalies of conduct which do not seem to be amenable to a properly supervised and cooperative discipline.

The parents, the relatives, and even the close friends are blinded to the true state of affairs by love and an apprehension as to what the truth might reveal, and they seek explanations, for the poor progress or conduct anomalies, which avoid mental pain and distress to themselves. Teachers and physicians uninfluenced by sentiment, must direct the search for truth into proper channels, and although they may occasion acute suffering instead of a long drawn-out anxiety, they will save the child much unhappiness and remove an obstacle to the general advancement of a group of children, or remove from the midst of normal children one who may, and frequently does, by example and action, inculcate many distressing and often dangerous habits.

When a child is unable to acquire knowledge or does not make a normal progress, is addicted to vicious habits or its reactions to situations are unusual, one is to seek the explanation in the presence of physical disease, defective intellectual development, an acquired psychosis, or constitutional psychopathy. Every child who has difficulty in acquiring knowledge, to maintain a normal average or who has difficulty in adjusting itself to school discipline, should undergo a complete and careful physical examination to determine whether or not it presents physical deviation from normal. In some instances anemia, mal-nutrition, intestinal parasites, ocular disease or abnormalities, irritation of the genitalias, disease of the various organs of the body, etc., may be the explanation of the diffi-

ulty. When a careful physical survey does not solve the problem, a mental examination will reveal the presence of one or a combination, of the following three conditions:

1. Intellectual deficiency.
2. Acquired psychosis.
3. Constitutional psychopathy.

Intellectual deficiency:

This group consists of a comparatively large number of individuals whose intellectual age varies from no intelligence to just below normal for the particular station in which the individual finds himself. The lower the grade of intelligence, the more evident is its manifestations. As a rule, it is only when one approaches to within a moderate degree of normal, that the question of intellectual defect arises. These children enter kindergartens, learn to play fairly well, and may even retain the rudimentary facts which are there imparted, but one soon notices that these children acquire these facts with greater difficulty than the rest of the children of their same physical age, or often of a lesser physical age; then it is next noticed that these children do not advance with the same rapidity as other children of their age, and usually in the first and second grades they are older by one to three years than the average child of their grade. They rarely are able to acquire sufficient knowledge to advance beyond the third, fourth, or possibly the fifth grade. In addition to the difficulty these children have in acquiring new knowledge or retaining information, there are often anomalies of conduct. They may be more than ordinarily credulous, and consequently are often imposed upon. Some of them are extremely timid and apprehensive and are subject to spells of terror; others are irritable, vain, quarrelsome, loquacious and mendacious, are nearly always cowardly and cause trouble by their restlessness, by annoying those weaker than themselves. Weakness of judgment is a most prominent symptom in these cases, and even when the other symptoms may be overlooked, arouses in the teacher suspicion that all is not well.

When with proper co-operation at home, good attendance, and in the absence of physical illness, a child does not maintain the average progress of children of similar age, an examination to determine its mental age should be instituted, and this will very promptly disclose whether the difficulty lies within the child itself, or is due to some external cause.

Acquired psychosis:

The dementia praecox group, better called schizophrenic psychosis. the maniac depressive group, also called cycloth-

miac psychosis, and juvenile paresis, manifest themselves as anomalies in conduct, or inability to maintain normal intellectual progress.

The Schizophrenic psychosis:

The dementia praecox group is by far the most important, for it occurs much more frequently than either of the other two, and it is also very apt to manifest itself early in life.

The term dementia praecox is applied to a group of mental disorders appearing chiefly during the period of adolescence, and which terminate in mental deterioration. It manifests itself by the failure of the individual to make adjustments normally to his environment and in whom occur numerous psychic and physical signs and symptoms.

Kraepelin in 1896 included under the name of dementia praecox, various forms of mental abnormalities which had been described under different terms by previous writers. Bleuler has proposed that the term of schizophrenic replace that of dementia praecox, as this would more clearly indicate the character of the disease. Kraepelin, Bleuler, Meyer and others all agreed that there are certain fundamental points which mark the dementia praecox patient:

1. Lack of proper connection between thought processes, and the emotional and volitional reactions.
2. Disorder and defect of the emotional tone.
3. The attitude presented by the patient which results from the feeling that his thoughts and actions are controlled by some other influence than his own efforts.

Symptomatology: The onset is usually between the time of puberty and 30. Mental changes come on insiduously, and are manifested solely by a gradual replacement of the natural disposition by a state of apparent indifference, mental sluggishness, loss of interest in friends, family, school and play, or work. In the beginning of the disorder the patient is often credited with laziness or willful indifference. The patient may become seclusive, shunning company, and may be markedly changed in his habits as to food. Attempts to arouse the patient from this state of indifference are usually met with outbursts of irritability or violence. There is often a change in the patient's personal habits, becoming extremely careless of his appearance and cleanliness. Along with these symptoms, the patient may complain of headaches, dizziness, a sense of fatigue on slight exertion, vague bodily pains, insomnia and depression. He often comes into conflict with discipline; is late, restless, sometimes active, often silly, etc.

The dementia is peculiar in these cases in that it does not involve all the mental processes equally. Generally, there is very little real impairment of memory. He is able to understand what is going on about him, but usually shows very little interest. Orientation is practically well preserved. Attention is always seriously impaired, and often there is exhibited a morbid curiosity concerning relatively unimportant matters. The predominating characteristic is the involvement of the emotional sphere. This is the earliest as well as the most pronounced affection of the mental processes, emotional instability or indifference shows itself by lack of interest in the surroundings, and often attempts to urge upon the patient an interest in his surroundings is met by a very irritable response. Paradoxical emotional states are often present—silly laughter or tearful outbursts, either without adequate cause, may interrupt the listless and apparently indifferent attitude.

The ideational processes often show that the patient's expressed ideas are not in accord with the emotional state of the individual, or the ideas expressed may be in no way connected with the content of thought.

Judgment is practically always affected. The defect may vary from weakness to marked changes, such as persistent delusional ideas. Insight is always affected in this particular.

Volitional responses are frequently disturbed, and the normal responses are often replaced by automatic or impulsive reactions. These may vary from stupor, interrupted by aimless excitement, to states characterized by negativism, stereotypy, mannerisms, etc.

The dementia praecox patient exhibits his mental disorder largely by his actions; voluntary activity is greatly diminished in most cases, and in some cases is entirely absent. Patient sits idly for hours, or lies in bed all day, and very often the general inactivity is interrupted by a tendency to impulsive acts. These impulsive acts might show themselves by screaming spells, laughing spells, sudden attacks of violence in which without cause, the patient may destroy furniture, strike someone, etc., and immediately relapse into a state of quietude.

There is much in the conduct of these patients that suggests a reversion to the infantile or childlike type of action, echolalia, (repetition of words), echopraxia (repetition of acts), negativism, mannerisms, such as grimacing, distortion of features, etc.

Hallucinations frequently are fleeting, and are often not conspicuous. Delusions usually are more or less similar to weakness, of judgment of the immature mind, the most common being the idea that the parents, friends, or teachers are not treating him well.

The disease may begin with mild excitement or mild depression and generally accompanying these mental states is loss of interest in the environment and failure to make adjustment. The emotional tone shows marked instability, often changing rapidly from very marked irritability and excitement to marked friendliness or depression. The emotional indifference shows itself in loss of natural affection, or loss of interest in the welfare and happiness of the relatives and friends.

Physical signs: These occur later than the mental symptoms. Loss of weight, anemia, circulatory disturbance, vasomotor instability, pupillary disturbances, disturbances of menstruation, etc.

Pathology: Various opinions have been expressed as to the cause of this symptom complex. Among those standing out most prominently are that this disease is the result of toxemia, disturbance of metabolism, organic diseases of the brain, or that it is entirely psychogenic.

Cyclothmiac psychosis: Another reason why children do not continue to make normal progress or exhibit anomalies of conduct is due to the fact that there has developed this type of psychosis.

Symptomatology: The first attack may occur at any age, but usually occurs before the 25th year. In some instances attacks occurred as early as the 9th and 10th year. Attacks may be brought on by physical or mental strain.

This disease manifests itself by quantitative disturbance of the normal mental processes and reactions.

Memory and orientation are only disturbed in so far as there is faulty attention.

Hallucinations and illusions are rare.

The emotions present fundamental disturbances. There is lessening and removal of the normal inhibitory influences in the exalted stage, the individuals have a feeling of happiness, are talkative, restless, there may be rapid variability of mood, from anger and irritability to peacefulness and gentleness. In the depressed phase of this disease the facial expression shows sadness and anxiety, the emotional tone is that of hopelessness and fear, and they talk in a low tone of voice.

Judgment is impaired. In the exalted phase they have a feeling of superiority and sometimes persecutory ideas, and in the depressed phase a feeling of inferiority, depressive delusions, etc.

Conduct is altered and is influenced by the type of the disease. In the exalted phase they are restless, there is increase in physical activity, lack of self-control, often outbursts, physical or emotional in character, which when not restrained tend to increase. In the depressive phase there is decreased activity,

lack of all interest. Every act is an effort, and often ideas are of very depressive nature.

Juvenile paresis: This is a form of mental trouble that occurs with comparative frequency in adults, and occasionally manifests itself in early childhood. It occurs as early as the 9th, 10th, 11th or 12th year, and is always caused by a syphilitic infection, which is usually congenital. Children so affected may show certain physical signs at birth, or may be apparently healthy and measure up to the normal intellectual and conduct standards in the first few years of life; then without apparent cause, between the 10th and 13th years, there is noticed a lack of interest in their work, difficulty in memory, often disturbance of speech, a general tremulousness, weakness of judgment, silly behavior, sudden emotional attacks, which may be of a violent physical or mental kind, or there may occur convulsions. The condition is slowly progressive and is accompanied by perfectly definite physical signs, which make its recognition a very simple matter.

Constitutional psychopaths:

This group is very heterogeneous, and is much in evidence in family, school and social life. The maladjustment in these cases seems to arise on a basis of inherent anomalies of judgment, temperament, character, moral sense and sexual make-up. It is not to be understood that all social maladjustments rest upon constitutional abnormalities. Abnormalities in the conduct of these individuals manifest themselves early in childhood and become accentuated with the age of the patient and with increasing emancipation from parental control. Sooner or later the individual comes in conflict with discipline and comes to the attention of those responsible for disciplinary enforcement. Some cases of the milder sort achieve adjustment until situations arise imposing special or new restraints.

The following varieties of the constitutional psychopathic states have been distinguished in classifications adopted by the surgeon general of the Army. Many cases, however, present combination of two or more of the distinguishing traits of this classification.

- 1st—Inadequate personality
- 2nd—Pathological lying.
- 3rd—Paranoid personality.
- 4th—Emotional instability.

- 5th—Criminalism.
- 6th—Sexual psychopathy.
- 7th—Nomadism.

1st—Inadequate personality: These individuals in spite of good education, social, and economic opportunities, as the result of lack of initiative, ambition, perseverance, judgment, shiftlessness, etc., make a failure of everything they attempt. It seems impossible in any way whatever to stimulate these individuals to meet their responsibilities. Very often associated with this variety are the pathological liars.

2nd—Pathological liars: These individuals falsify in disproportion to any discernable end in view, and such lying rarely, if ever, centers about any single event. It manifests itself generally over a period of years, or even the entire life. In many instances extensive and complicated fabrications, are involved. When these individuals are confronted with their fabrications, they do not seem to be embarrassed, and make no effort to justify themselves, and even if they do, it is usually by some grosser invention than that in which they were discovered.

3rd—Paranoid personality: The group composing the paranoid personality is characterized by conceit and suspicion. There is a stubborn adherence to fixed ideas, contempt for the opinion of others, weakness of judgment, leading to distortion of practical values, a tendency to develop persecutory trends, and argumentativeness.

4th—Emotional instability: The emotionally unstable group is characterized by extreme and ill advised mobility of the emotions. The individuals pass alternately from exaggerated joy to marked depression; from affection to hatred; extreme egotism to exaggerated generosity, or fly readily in uncontrollable rages and commit violent assaults. Punishment seems to have no deterrent effect, weakness of judgment is manifested by repetition of crimes or violent actions, when there is an absolute certainty of it being impossible to escape their consequence.

5th—Criminalism: This condition is characterized by a defect of the moral sense, and may exist independent of feeble mindedness. The degree of criminalism is dependent upon the degree of moral defectiveness. In these individuals the moral defectiveness shows itself in perversities of character and conduct. The child is naughty, cruel, deceitful, irritable, violent, taciturn, etc. Education, moral surroundings, and the sufferings of those who should be dear to them, fail to modify these individuals. The dominant feature in these individuals is egotism and complete indifference with regard to right and wrong. Their exclusive aim is pleasure and self interest, which is generally perverted by poor judgment. To obtain his end he does not hesitate to use any means or expedient. He has neither sentiment of honor nor respect for truth. He is cruel and malicious toward his inferiors and the weak in general, and cowardly and cringing toward those he fears. In these individuals there is usually absence of perseverance, always weakness of judgment, which ultimately causes them to come in conflict with discipline and often impulsiveness, which causes them to yield readily to first thoughts. They have well developed powers of simulation, which enable them to simulate the

most touching remorse, and their principal concern is to escape punishment and correction.

6th—Sexual psychopathy: Sexual psychopathy manifests itself in anomalies of degree and anomalies of nature. These individuals are a great menace in schools. Being undeterred by moral restraints, and having weakness of judgment, they practice their acts upon the not too unwilling victims of a lesser age, and by example and practice often contaminate large groups of children, whose immature judgment, weakly controlled feelings, and whose tendency to imitate and admire that which is unusual and practiced by those older than themselves, readily make them companions of folly and pleasure.

7th—Nomadism: This tendency is present in most of us, and in certain races is so pronounced as to govern their mode of existence and social organizations. The wandering impulse is to be judged within normal limits if it has not the effect of breaking down social judgment. In some instances the wandering instinct is periodic, and may occur in mental deficiency, epilepsy, dementia praecox, maniac depressive psychosis, etc., or it may be permanent, due to an underlying mental disorder. There are, however, cases in which all of these causes can be excluded, in which the nomadic impulse is so imperative as to lead to constant aimless wandering, precluding all possibility of continued occupation. These individuals travel in any way they can. They work only when they must; more infrequently beg or steal; rarely remain in one place for any length of time; they care not where they go, but feel impelled to change. They are seldom able to give a rational reasoning for their wanderings, and they rarely interest themselves in the places and people with whom they come in contact.

Conclusion: When one considers these various digressions from normal, one is impressed with the hopelessness of dealing with them in any place but institutions especially prepared to care for them. It is absolutely unfair to normal children to permit, even for a short time, association with those who are mentally defective, mentally ill, or morally deficient.

ADVICE: If a child does not make reasonable intellectual progress or ceases to make his accustomed intellectual progress, or fails to adjust himself to a reasonable discipline in school, a very careful survey of that child should be made, and this survey should include a visit to the child's home to determine his physical and social surroundings, the care and training that he receives at home, a careful physical survey to determine the presence of physical abnormalities or disease, and if these fail to explain the child's difficulties, a proper mental examination will disclose the underlying cause.

EDITORIALS

WHO WILL START THE BALL "A-ROLLING"?

The following reply has been received to the appeal for additional contributions to the David Streett Memorial Fund. Some four years ago this testimonial had reached the figure of



DAVID STREETT, M. D.

\$500.00, since which time it has increased merely by the yearly interest increments. Before it can be put to work, there must be \$3,000.00 in hand. At 5% this sum will yield an annual scholarship worth \$150.00. At the rate the Fund has been

dragging along, it will be years before it is of service. In consideration of the many friendly acts shown by Dr. Streett to his students while dean of the Baltimore Medical College, it seems that the response to this appeal should have been more cordial. Dr. Miner has most liberally offered to donate \$100.00 toward its completion, if 24 other such pledges be obtained. Who will start the ball a-rolling? Make your check payable to Dr. J. M. H. Rowland, Treasurer, University of Maryland, Lombard and Greene Streets, Baltimore, Md. Here is what Dr. Miner says:

Augusta, Me., March 2, 1925.

Editor, *Alumni Journal*,
University of Maryland,
Baltimore, Md.

DEAR SIR:

I see in the *Alumni Journal* for January, 1925, a picture of my old dean, Prof. David Streett. I see that only \$500.00 of the \$3,000.00 has been raised. I thought that it had been raised many times. It seems like such a small matter to such a large number of men that occupy, I hope, high and honorable positions, that I am quite surprised that the matter has been allowed to drag in this way. To stimulate others to consummate this fund, I will be one of twenty-five to give \$100.00 each to make up the balance or will do my part in any other plan for the sake of raising the amount. I believe Dr. Streett, with his nice letters and splendid service to me should in a large way have the credit for my present position in life. I believe there are hundreds of others who could truthfully say the same thing. I wish that we might get together and do this small honor to our friend and teacher.

I wish that it might be possible to arrange for a reunion of my old class of 1898 at B. M. C.

Any final plan that you can make and present will be very gladly considered by

Yours very truly,

W. N. MINER.

If you can't give the amount stipulated by Dr. Miner, any amount you desire to contribute will be most acceptable to those who have the completion of this Fund in hand.

UNIVERSITY OF MARYLAND
Graduates in Medicine, 1898

Thomas P. Benson, Hanover, Md.
Albert J. Bossyns, 206 Barre St., Baltimore, Md.
Camillus P. Carrico, Elkton, Md.
William J. Carter, address unobtainable.
Frederick S. Cate, 2137 Nadeau St., Los Angeles, Calif.
Albert T. Chambers, dead.
Samuel Claggett, dead.
John O. Davies, Rossville, Md.
Eugene G. Denson, 2110 Twenty-third Ave., Meridian, Miss.
Page Edmunds, 12 Elmwood Road, Roland Park, Baltimore, Md.
Horace A. Falconer, 108 Main St., Fairmont, W. Va.
Robert L. Felts, 1st Natl. Bank Bldg., Durham, N. C.
Claude C. Gambrell, dead.
M. E. Gardner, 1632 Sixteenth St., N. W., Washington, D. C.
Grayson R. Gaver, Central Union Depot, Cincinnati, Ohio.
Frank H. Hedges, 13 W. Second St., Frederick, Md.

Geo. L. Hicks, Colonel of Artillery, U. S. Army, Washington, D. C.
 William M. Hunter, address unobtainable.
 Charles J. Keller, 222 W. Monument St., Baltimore, Md.
 John N. Kendig, address unobtainable.
 Marion N. King, Dickson Bldg., Norfolk, Va.
 Edward E. Lamkin, Vienna, Md.
 Geo. W. Ludwig, address unobtainable.
 Leander B. Milbourne, 16 S. Gilmore St., Baltimore, Md.
 Robert Stevens Page, Bel Air, Md.
 R. Hamilton Pate, Unadilla, Ga.
 William Henry Seton, dead.
 Alvey J. Smith, Wolfsville, Md.
 Calvin DeFord Snyder, dead.
 Henry Dickson Stewart, Monroe, N. C.
 Luther C. Stitely, New Windsor, Md.
 Ellis G. Stuart, address unobtainable.
 John A. Tompkins, Supt. Maryland General Hospital, Baltimore, Md.

COLLEGE OF PHYSICIANS AND SURGEONS

Graduates in Medicine, 1898

Nisham Amiralian, address not obtainable (Asia Minor).
 Salim Y. Atiyah, address not obtainable (Syria).
 Geo. M. Bailey, 220 Howard Blvd., Providence, R. I.
 A. C. Boyles, Augustus, N. C.
 G. H. Brownfield, 323 Main St., Fairmont, W. Va.
 W. B. Brobst, Ephrata, Wash.
 J. F. Buguol, address unobtainable.
 F. Edward Burke, Wakefield, R. I.
 William G. Coppage, 2303 N. Calvert St., Baltimore, Md.
 T. J. Davis, Sumerton, N. C.
 A. E. Elkhonry, address unobtainable (Syria).
 L. J. Callup, 216 W. 26th St., Norfolk, Va.
 Thomas F. Godfrey, 145 State St., Springfield, Mass.
 B. B. Hauser, Hooper, Neb.
 Ira C. Hicks, 103 Fifth Ave., Huntington, W. Va.
 Chas. Jensen, dead.
 J. H. Kearney, 147 Pritchard St., Fitchburg, Mass.
 N. B. Keckigian, address unobtainable (Asia Minor).
 H. N. Khalfeyan, address unobtainable (Asia Minor).
 Khalib I. Konsa, address unobtainable (Syria).
 Glem M. Litsinger, dead.
 J. C. Medara, Ridgely, Md.
 T. W. Madden, Collingswood, N. J.
 Geo. Street McReynolds, Temple, Tex.
 W. E. Miller, address unobtainable.
 Elmer J. Morrison, Naval Radio Sta., Bar Harbor, Me.
 Israel Neugroschl, address unobtainable.
 D. F. O'Conner, 671 Broad St., Newark, N. J.
 Patrick J. O'Dea, 109 S. Main Ave., Scranton, Pa.
 Geo. H. Packard, 1302 Elm St., Manchester, N. H.
 Geo. E. Robison, Boston Bldg., Salt Lake City, Utah.
 Abraham Samuels, 1928 Eutaw Place, Baltimore, Md.
 Elias J. B. Sawabina, address unobtainable (Palestine).
 E. W. Steeves, Republic, Pa.
 Ayyah Tabet, address unobtainable (Syria).
 Gabriel A. Trad, address unobtainable (Syria).
 Herman Westphal, address unobtainable.

BALTIMORE MEDICAL COLLEGE

Graduates in Medicine, 1898

E. T. Arble, Carrolltown, Pa.
 Samuel E. Ambrose, Rural Valley, Pa.
 William E. Anderson, Elizabethtown, N. J.
 Wilmot B. Allen, 342 Willis Ave., New York City.
 Luther M. Abbot, Newcastle, Va.
 Ernest L. Averell, 681 N. Howard St., Akron, O.
 John H. Bannon, 341 Haverhill St., Lawrence, Mass.
 Joseph W. Barker, 486 W. Main St., Newark, O.
 W. H. Benson, address unobtainable.
 John C. Beck, Monongahela, Pa.
 William G. Booth, Joshua Green Bldg., Seattle, Wash.
 Anthony P. Brady, Painesville, Ohio.
 Frank E. Brigham, address unobtainable.
 Morris G. Budwig, Osborne Bldg., Cleveland, Ohio.
 I. J. Burriess, address unobtainable.
 Anthony J. Gaffrey, 1204 Grand Ave., Milwaukee, Wis.

Vernon A. Chapman, Wells Bldg., Milwaukee, Wis.
 Mortimer T. Cavanaugh, Great Barrington, Mass.
 W. F. Clarkson, address unobtainable.
 Samuel I. Conduff, 31½ Campbell Ave., S. W., Roanoke, Va.
 S. P. Conduff, Draper, Va.
 Leonidas W. Cobun, 220 High St., Morgantown, W. Va.
 J. H. Cole, Anaheim, Calif.
 Carus L. Cookman, Buchannon, W. Va.
 Nickolas M. Crofts, 45 Main St., North Adams, Mass.
 W. A. Davis, address not obtainable.
 Lester W. Day, Fargo, N. D.
 Thomas L. Darby, River Point, R. I.
 Dinsmore D. Delaney, Cecil, Pa.
 Ira D. A. Diller, address unobtainable.
 Thomas E. Daugherty, 1602 Pennsylvania Ave., Baltimore, Md.
 W. E. Echols, Richwood, W. Va.
 E. S. Edwards, address unobtainable.
 R. J. English, address unobtainable.
 J. W. Fairing, Tribune Press Bldg., Greensburg, Pa.
 Burton W. Fassett, Gear Bldg., Durham, N. C.
 Arthur M. Fernald, Hampton, N. H.
 Chas. O. Fowler, Springfield, Tenn.
 T. O. Freeman, 630 Broadway, Mattoon, Ill.
 B. Friedlander, Selevaing, Mich.
 Lewis Fish, 86 Day St., Fitchburg, Mass.
 Frank D. Garrett, Two Republics Bldg., El Paso, Tex.
 Frank S. Garrett, 458 Broadway, Chelsea, Mass.
 C. F. Garland, address unobtainable.
 J. C. Garlington, address unobtainable.
 William S. Griffith, 600 Franklin St., Johnstown, Pa.
 Wm. E. Grim, Cameron, W. Va.
 Jas. M. Grantham, 515½ Franklin St., Tampa, Fla.
 LeRoy K. Hagenow, Apponaugh, R. I.
 H. H. Hakimian, address unobtainable (Asia Minor).
 William L. Hammersley, Frankford, Ind.
 R. M. Hammond, address unobtainable.
 Arthur Hebb, Professional Bldg., Baltimore, Md.
 Charles Highsmith, Dunn, N. C.
 M. B. Hollis, address unobtainable.
 William Howe, Las Vegas, N. M.
 John G. Huber, 1607 Fulton Ave., Evansville, Ind.
 Vernon Huse, address unobtainable.
 R. L. Hoyt, 26 E. Preston St., Baltimore, Md.
 William J. Jennings, dead.
 Byron H. Jackson, 516 Spruce St., Scranton, Pa.
 Evan L. Jones, Philipsburg, Pa.
 H. B. Kazanjian, address unobtainable (Turkey).
 J. J. Keating, address unobtainable.
 Geo. B. Kirk, Kylertown, Pa.
 Wm. P. Knight, White Oak Drug Co., Greensboro, N. C.
 Frederick Lahmers, 221½ N. Third St., Barborton, O.
 Austin A. Lamar, Middletown, Md.
 J. P. Lawlor, dead.
 Fred. J. LaRiew, Washington, N. J.
 A. A. Lawrence, address unobtainable.
 C. H. Link, address unobtainable.
 William R. Lindley, Terrell, Tex.
 Edward L. Linton, Cambridge, O.
 A. L. Lloyd, Nisland, S. D.
 Arthur M. Loope, 63 Railroad St., Cortland, N. Y.
 Ernest W. Lowe, dead.
 Oscar L. Long, 2429 Fait Ave., Baltimore, Md.
 James C. Lumpkin, 818 Park Ave., Baltimore, Md.
 Herbert S. Martyn, Cuttingsville, Vt.
 M. G. Miller, address unobtainable.
 M. P. Miller, address unobtainable.
 Elmer M. Miller, Woodsville, N. H.
 Frederick W. Mitchell, Houlton, Me.
 Walter N. Miner, Calais, Me.
 T. M. Morrow, address unobtainable.
 T. E. Murray, address unobtainable.
 Claude D. Mulbury, dead.
 Joseph E. Muse, 1520 Hollins St., Baltimore, Md.
 J. C. McAfee, address unobtainable.
 James H. McCaffrey, 394 Adams St., Buffalo, N. Y.
 Michael J. McGowan, 714 N. State St., Chicago, Ill.
 James T. McGovern, 746 Monroe Ave., Rochester, N. Y.
 G. McHugh, dead.
 J. W. McPherson, dead.

G. T. McGuire, Forest City, Pa.
 A. B. Najjar, address unobtainable (Egypt).
 A. Najjar, address unobtainable (Egypt).
 Henry J. Nickel, Cambria Steel Co. Bldg., Johnstown, Pa.
 Henry W. Nolte, 255 Mulberry St., Newark, N. J.
 LaVerne D. Paige, Spring Creek, Pa.
 James R. Parker, Clinton, N. C.
 James Patterson, address unobtainable.
 L. A. Pickering, dead.
 P. Prentis, address unobtainable.
 Luther G. Probasco, Whitesville, N. Y.
 C. H. Potter, address unobtainable.
 John M. Quigley, Clearfield, Pa.
 C. H. Ravich, address unobtainable.
 John B. Ray, Leaksville, N. C.
 A. Reader, address unobtainable.
 J. D. G. Reece, address unobtainable.
 Thomas L. Richardson, U. S. Quarantine Sta., Baltimore, Md.
 W. D. Rexford, address unobtainable.
 J. K. Robson, address unobtainable.
 Wilbur B. Roberson, Burnsville, N. C.
 I. J. Sampson, dead.
 Oscar P. Schaub, O'Hanlon Bldg., Winston-Salem, N. C.
 W. H. Schopfer, address unobtainable.
 Merton E. Scafuse, Merchants Natl. Bank Bldg., Elmira, N. Y.
 C. K. Seidel, address unobtainable.
 Nicholas J. Shields, San Louis Obispo, Calif.
 John H. Sisler, 2914 Grand River Ave., Detroit, Mich.
 E. H. Sloane, address unobtainable.
 Clarence I. Sparks, East Hampton, Mass.
 E. M. Southwick, address unobtainable.
 Charles F. Smith, dead.
 Aaron B. Sollenberger, Waynesboro, N. C.
 F. A. R. Strensch, address unobtainable.
 Wm. Stacy, address unobtainable.
 James W. Strother, Belington, W. Va.
 John H. Sullivan, Mt. Clemens, Mich.
 Charles Tate, Reibold Bldg., Dayton, Ohio.
 T. Tevelkian, address unobtainable (Turkey).
 E. C. Thorn, address unobtainable.
 Albert C. Thomas, Foxboro, Mass.
 Richard J. Turk, Renovo, Pa.
 Sherman R. Wantz, 865 W. 36th St., Baltimore, Md.
 Chester C. Waller, dead.
 John E. Walsh, 223 Beach St., Revere, Mass.
 Lew G. Wallace, address unobtainable.
 Elgie L. Wasson, Butler Co. Natl. Bank Bldg., Butler, Pa.
 H. C. Wayland, address unobtainable.
 Geo. S. Weger, Lacombe, Alberta, Can.
 Nathan E. Wells, Newcastle, Wyo.
 Wm. H. Wilson, St. Albans, W. Va.
 L. E. Willard, Saco, Me.

COL. F. S. L. FORD, C. M. G., M. D., L. M. C. C.

Royal Canadian Army Medical Corps

Col. Frederick Samuel Lampson Ford, gold medallist of the class of 1894, C. P. and S., joined the Canadian Army Medical Corps some years before the war; in August, 1914, mobilized the First Canadian Casualty Clearing Station, a unit corresponding roughly with the Evacuation Hospital of the U. S. A.; proceeded to England and began the organization of the Duchess of Connaughts Hospital at Cliveden, one of the seats of the present Lord Astor; proceeded to France February, 1915; attached to Headquarters, Canadian Corps, and First Canadian Division; mentioned in despatches; created a Companion of the most distinguished Order of St. Michael and St. George,

June, 1915; severely wounded, June, 1917; invalided to Canada, March, 1918; Inspector of Military Hospitals; District Medical Officer, Military District No. 2 with headquarters at Toronto, Ontario, Canada.

A ROUGH ROAD

The matter of collecting funds for the Burt J. Asper Memorial has come upon hard times. The road has been a rough one and the traveling hard, still we have not lost heart and are again appealing to the generosity of our alumni to make the testimonial worthy of the man and his sacrifice. A little encouragement in the way of a dollar or so from the well disposed heartens us to further efforts to raise an amount sufficiently large to be of some practical value. Good books and standard journals can no longer be procured for a pittance. It will therefore require a sum in hand of at least \$500.00, before the interest therefrom can be applied to the subscription to periodicals or to the purchase of one or two recognized text-books. Inasmuch as the Fund is progressing at a snail's pace, the prospect of putting it to work is in the dim and distant future unless some good-hearted friends come to its rescue. These have subscribed:

Dr. Adolph Mulstein.....	\$ 15.00
Dr. C. A. Waters.....	10.00
Anonymous	10.00
Dr. Paul P. McCain.....	10.00
Dr. E. J. Nichols.....	5.00
Dr. Vernon Oler.....	5.00
Dr. Charles R. Law.....	5.00
Dr. J. J. Greengrass.....	15.00
Dr. A. M. Shipley.....	10.00
Dr. J. R. Agnew.....	10.00
Dr. Kenneth B. Jones.....	5.00
Dr. R. A. Allgood.....	5.00
Dr. Randolph Winslow.....	5.00
Dr. S. W. Moore.....	5.00
Dr. F. F. Callahan.....	10.00
Dr. J. W. Holland.....	5.00
Dr. Glenn Allison.....	10.00
Dr. S. Demarco.....	5.00
Dr. Nathan Winslow.....	5.00
Dr. Ralph J. Vreeland.....	15.00
Dr. Frank Lynn.....	5.00
Dr. R. A. Bonner.....	5.00
Dr. Myrton B. Raynes.....	1.00
Dr. Kivy Pearlstine.....	1.00
Dr. Harry D. McCarthy.....	1.00
Dr. H. M. Robinson.....	1.00
Dr. A. J. Lomas.....	1.00
Total	\$180.00

MARK DOWN THESE DATES ON YOUR CALENDAR AND THEN
KEEP THEM IN MIND

This is an official notice that the Annual Meeting of the Alumni Association will be held on June 2, 1925, and the annual banquet on June 4, 1925. Due notice of the places

where these functions will be held will be mailed out in time for those intending to attend to make proper arrangements for these occasions. Last year's reunion was a banner affair. This year those in charge of the arrangements hope to make the occasion larger and bigger than ever. Come old grads and renew past friendships and meet your new colleagues. Give the novitiates a hearty welcome into the profession.

"Ah, friends, dear friends, as years go on and heads get gray—how fast the guests do go! Touch hands, touch hands with those who stay. Strong hands to weak, old hands to young, around the banquet board, touch hands. The false forget, the foe forgive, for every guest will go and every fire burn low and cabin empty stand. Forget, forgive, for who may say that reunion day may ever come to host or guest again. Touch hands."

FALL IN LINE

As already announced in a previous issue of the BULLETIN, the class of 1900, B. M. C., will hold a reunion in Baltimore during the coming commencement festivities. This is an appeal to the classes of the same year of the College of Physicians and Surgeons and of the old University of Maryland to hold similar reunions or what is better still to join hands with the above mentioned class, inasmuch as all three classes are now a part of the same institution. Men of the classes of 1900 of the affiliated schools, twenty-five years in harness is a matter of no small importance. Your numbers are rapidly thinning. Of the 61 candidates graduated by the Baltimore Medical College, 12 are known to have "gone West"; of the 36 granted the diploma of the College of Physicians and Surgeons, 3, possibly more, are dead; of the 65 men receiving the degree from the University of Maryland, 9 have ceased their earthly toils. Appended are the roll-calls of the 1900 classes of the College of Physicians and Surgeons and of the University of Maryland. Who will undertake the task of getting them together? The time is short, not a minute is to be lost; but it can be done by an intensive campaign. THE BULLETIN would suggest that there be a consolidation of forces and that Dr. G. Allen Troxell, as he has already inaugurated the machinery for reassembling his B. M. C. cohorts, expand upon his plans and issue a joint invitation to the classes of the other two schools. This would be an excellent opportunity for these men to get acquainted. It would be in line with the policies of the University, viz., a welding of its divergent interests into a solid, unified phalanx marching shoulder to shoulder with one object in view, the glorification of the new University of Maryland, not the College of Physicians and Surgeons, not the Baltimore Medical College, not the old University of Maryland. This is a new day and another order is in the saddle, let's fall in line.

UNIVERSITY OF MARYLAND

Graduates in Medicine, 1900

James S. Akehurst, 4012 Park Heights Ave., Baltimore, Md.
 Louis W. Armstrong, Ben Hur Bldg., Crawfordsville, Ind.
 Geo. D. Anawati, address unobtainable (Egypt).
 Craig Barrow, 17 W. McDonough St., Savannah, Ga.
 C. Anthony Beck, 2404 W. 16th St., Wilmington, Del.
 Wm. C. Bennett, dead.
 C. Clarence Billingslea, dead.
 F. Talbott Brooks, Federalsburg, Md.
 Daniel R. Bryson, Bryson City, N. C.
 Julian F. Chisholm, 512 Abercorn St., Savannah, Ga.
 Chas. C. Conser, 1101 N. Fulton Ave., Baltimore, Md.
 Salvatore DeMarco, 1604 Linden Ave., Baltimore, Md.
 Samuel M. Deal, dead.
 Geo. L. Ewalt, 905 N. Gilmor St., Baltimore, Md.
 Lawrence C. Freeny, Pittsville, Md.
 Thos. M. Green, Masonic Temple, Wilmington, N. C.
 Paul W. Greene, Norfolk Protestant Hospital, Norfolk, Va.
 John Houff, 1843 W. Baltimore St., Baltimore, Md.
 William H. Houston, Capt. M. C., U. S. Army, Washington, D. C.
 Augustus C. Hoyt, dead.
 James C. Hyslup, dead.
 Ernest H. Johnston, 18 Abbott Ave., Waterbury, Conn.
 Howard Kahn, 2027 W. Pratt St., Baltimore, Md.
 Rufus S. Kight, Taylor Bldg., Norfolk, Va.
 Frederick Lawford, dead.
 C. Howard Lewis, 201 North Boulevard, Richmond, Va.
 Howard D. Lewis, 38 W. 25th St., Baltimore, Md.
 Lorenzo D. McPhail, Medical Bldg., Charlotte, N. C.
 Patrick F. Martin, Mt. St. Mary's College, Emmitsburg, Md.
 A. Aldridge Mathews, Paulson Bldg., Spokane, Wash.
 David A. Medders, World-Herald Bldg., Omaha, Neb.
 Harry Nalley, Mt. Rainier, Md.
 Henry A. Naylor, Pikesville, Md.
 Jos. B. O'Neill, 180 East Ave., Pawtucket, R. I.
 Martin A. O'Neill, 180 N. Fulton Ave., Baltimore, Md.
 R. Stratner Orem, 2827 N. Calvert St., Baltimore, Md.
 Levin G. Owings, dead.
 Merton S. Pearre, Unionville, Md.
 Albinus Poole, West Union, W. Va.
 R. Bynon Rees, 200 Park St., Bakersfield, Calif.
 Andrew J. N. Reik, 506 Cathedral St., Baltimore, Md.
 Jas. C. Robertson, 2129 E. Baltimore St., Baltimore, Md.
 Meredith I. Samuel, Du Pont Bldg., Wilmington, Del.
 Jas. C. Sappington, Libertytown, Md.
 Edw. H. Schild, 330 Cleveland Ave., S. W., Canton Ohio.
 Wm. L. Schoeler, address not obtainable.
 Wallace Sellman, address not obtainable.
 Wilbur F. Skillman, 1227 W. Lafayette Ave., Baltimore, Md.
 Edw. S. Smith, Macon, Mo.
 Wm. H. Smith, 3429 Chestnut Ave., Baltimore, Md.
 Irving J. Spear, 924 N. Charles St., Baltimore, Md.
 Samuel A. Stevens, Monroe, N. C.
 Daniel E. Stone, Jr., dead.
 Herschel J. Stricker, Jr., 632 Gorsuch Ave., Baltimore, Md.
 Walton L. Strother, Salem, W. Va.
 N. S. Taqy-Ud-Din, Najib, Cebu, P. I.
 Wm. Tarun, 605 Park Ave., Baltimore, Md.
 Jesse H. Teague, Laurens, S. C.
 Edwin P. Tignor, D. C., U. S. Army, Washington, D. C.
 Harry C. Tull, Salisbury, Md.
 J. Charles Wessel, Murchison Bldg., Wilmington, N. C.
 Joel Whitetaker, Raleigh, N. C.
 Jesse H. Whitehurst, 504 Pennsylvania Ave., Baltimore, Md.
 Walter F. Wickes, Brooklandville, Md.
 S. Denny Willson, St. Michaels, Md.

COLLEGE OF PHYSICIANS AND SURGEONS

Graduates in Medicine, 1900

Edward V. Arbaugh, Martins Ferry, Ohio.
 Arthur G. Barrett, 2000 Eutaw Place, Baltimore, Md.
 S. Benderly, address unobtainable.
 Robert M. Black, Cecilton, Md.
 G. Kirby Collier, 80 East Ave., Rochester, N. Y.
 A. E. Elliott, address unobtainable.
 Gustav M. Frederick, 349 Camden St., Newark, N. J.

Adolph G. Freedom, 918 E. Fayette St., Baltimore, Md.
 Cornelius S. Frankle, Millville, N. J.
 Robert C. Fleming, Republic Bldg., Louisville, Ky.
 Carl O. Hertzman, 803 Sixth St., W. Ashland, Wis.
 Patrick E. Hurley, 160 Chestnut St., Holyoke, Mass.
 Henry J. Hinkel, address not obtainable.
 Samuel H. Jessurum, 613 High St., Newark, N. J.
 S. W. Kline, dead.
 Thomas F. Kennedy, 180 Main St., Woonsocket, R. L.
 John W. Leonard, 420 S. Main St., Fall River, Mass.
 Michael J. McAvoy, 839 S. Ellwood Ave., Baltimore, Md.
 James L. McKnight, U. S. P. H. S. Hospital No. 51, Tucson, Ariz.
 J. Riley McCollum, St. Marys, W. Va.
 R. K. Morton, address unobtainable.
 J. F. Norris, address unobtainable.
 John C. O'Dwyer, address unobtainable.
 Thornton W. Perkins, Hopkinsonville, Ky.
 J. A. Penton, dead.
 Caleb W. G. Rohrer, 16 W. Saratoga St., Baltimore, Md.
 Dallas V. Smith, Letart, W. Va.
 H. Louis Stick, U. S. Vet. Hos. No. 49, Phila, Pa.
 Arthur R. Shawkey, Professional Bldg., Charleston, W. Va.
 Michael H. Shea, 263 Hall St., Fall River, Mass.
 Earl M. Stewart, Imperial, Neb.
 Charles B. Tiernan, Wingdale, N. Y.
 John W. Watson, dead.
 Jesse W. Williams, address unobtainable.
 Orland S. Wood, Washington, Ga.
 F. W. Young, address unobtainable.

MISS E. S. COHEN, Benefactress.

It is gratifying to the authorities of the University to announce the presentation of two further gifts during the past year in the form of the "Israel and Cecilia E. Cohen Scholarship" and the "Julius Friedenwald Research Fund for Medical Investigation", both presented through the generosity of Miss Eleanor S. Cohen of Baltimore. The "Israel and Cecilia E. Cohen Scholarship" of \$5,000 (income \$250 yearly) was established in memory of Miss Cohen's parents, and is available to a student in medicine, especially from the counties of Maryland which the Medical Council may from time to time determine to be most in need of medical practitioners. Any student receiving this scholarship must, after graduation and a year's internship, agree to undertake the practice of medicine for a term of two years in the county to which he is accredited. The "Julius Friedenwald Research Fund", presented by Miss Cohen in honor of her physician, is established for the purpose of stimulating medical investigation in the University.

Since the merging of the various schools into the greater University of Maryland, much interest has again been manifested, especially in the medical department, and the need of a greater endowment has become still further recognized. It is to be hoped that the generosity of Miss Cohen may be emulated by others inasmuch as the work of this institution can be greatly advanced by gifts of this character.

Perhaps, in the not too distant future, fellowships in the various departments of medicine may be founded to still further aid in establishing means of supplying adequate facilities to meet the ever growing demands necessitated by the rapid advances in medical science.

CORRESPONDENCE

UNIVERSITY OF MARYLAND
SCHOOL OF MEDICINE

BALTIMORE, MD., March 16, 1925.

DR. NATHAN WINSLOW, Editor of *Bulletin*, Baltimore, Md.

DEAR DOCTOR:—I wish to call to the attention of the Alumni the following benefactions of Miss Eleanor S. Cohen, of Baltimore:

First: Miss Cohen has established a scholarship in the Medical School in memory of her parents, Israel and Cecelia E. Cohen. The amount of money donated is \$5,000, the terms and conditions being the same as those of the Warfield Scholarship.

Second: Miss Cohen has established as a testimonial to Dr. Julius Friedenwald the Julius Friedenwald Research Fund. The amount of money donated is \$10,000, the income to be expended in medical research and investigation in such manner as the Dean of the Medical School, the Head of the Department of Medicine, and Dr. Julius Friedenwald during his lifetime may from time to time determine.

Such gifts as the above are a great encouragement to the Medical Department of the University, and it is hoped that the example of Miss Cohen may be followed by many of our other friends and alumni.

The establishment of research funds usually results in the creation of fellowships. These fellowships usually develop a group of eager and enthusiastic part time teachers who cannot be supplied from the ordinary funds of the school. The introduction of such a group of investigators and teachers is one of the things most needed in the Medical Department of the University.

May Miss Cohen's gifts be but the beginning of many such benefactions.

Very sincerely yours,

J. M. H. ROWLAND, *Dean*.

ALUMNI NEWS

All alumni please take notice! The Annual Meeting of the Alumni Association will be held on June 2, 1925, at the Medical and Chirurgical Faculty Hall, 1211 Cathedral St., Baltimore, Md., at 8:30 P.M. Besides the annual election of officers, other matters of importance will be discussed. Show your interest in your Alma Mater by your presence. A full attendance is desirable. For the benefit of those graduates who are not members, we are mailing again in this issue of the BULLETIN application blanks for enrollment in the Alumni Association. We urge you to fill it out and send it in at once.

Dr. Henry F. Hill, class 1877, has donated a hundred dollar surgical instrument set to be raffled off for the benefit of the new X-ray outfit recently installed at the University Hospital. Subscription \$1.00 per ticket. The drawing will take place the night of the election of officers of the Alumni Association. Those desirous of buying a chance but unable to attend the meeting may send in their subscription to Dr. Robert L. Mitchell, 2112 Maryland Ave., Baltimore.

The classes of 1905 and 1910 of the old University of Maryland are going to hold reunions on the night of the banquet, June 4, 1925, also the classes of 1900 of the Baltimore Medical College. The class of 1905 of the B. M. C. is likewise making an effort to get the class together the same night.

The survey committee appointed by the Board of Regents and the Alumni Association takes great pleasure after a most painstaking investigation of the various departments of the Medical School in reporting that the School is in a

most flourishing condition. The chiefs of departments cooperated in every way in this investigation. The committee found all departments working in harmony and giving their best efforts to the upbuilding of the school. The Medical Department today is in a better financial and physical condition than ever before in its history and giving a medical education second to none in the country.

The first semi-annual dinner of the Baltimore Medical Club of New York City, was held Saturday evening, February 28, 1925, at the Hotel Shelton, 49th Street and Lexington Avenue, New York City. The meeting was largely attended, and everyone present seemed to have spent a very pleasant evening. The purposes and objects of the club were deliberated upon at length, and after considerable discussion, everyone exhibited unbounded enthusiasm for the organization and for the principles it represented. The chairman of the evening was Dr. L. Winfield Kohn, class of 1910, of New York City. The toastmaster was Dr. David E. Hoag, of New York City. The address of the evening was delivered by Dr. William B. Pritchard, of New York City, on "My Thirty-eight Years of Experience in New York." The following officers were elected for the ensuing year:

CHAIRMAN—Dr. J. M. Hitzrot

VICE CHAIRMAN—Dr. D. E. Hoag

SECY.-TREAS.—Dr. L. A. Gager

EXECUTIVE COMMITTEE

Dr. W. B. Pritchard, *Chairman*

Dr. E. L. Meierhof

Dr. W. G. Lough

Dr. Jos. Coleman

Dr. H. C. Fleming

Dr. J. G. Callison

ENTERTAINMENT COMMITTEE

Dr. L. Winfield Kohn, *Chairman*

Dr. L. K. McCafferty

Dr. Dougal Bissell

MEMBERSHIP COMMITTEE

Dr. Jos. A. Devlin, *Chairman*

Dr. E. M. Buyer, New Rochelle, N. Y.

Dr. A. E. Man, New York City

Dr. H. W. Cave, New York City

Dr. J. L. Mathesheimer, Jersey City

Dr. G. E. Clark, Stamford, Conn.

Dr. T. M. Pascall, Newark, N. J.

Dr. P. C. Colonna, New York City

Dr. W. M. Priest, New York City

Dr. J. E. Duffy, New York City

Dr. J. S. Stovin, New York City

Dr. D.M.F. Elmendorf, New York City

Dr. M.B.C. Stovin, New York City

Dr. Max Greenwald, New York City

Dr. Henry Straus, Brooklyn, N. Y.

Dr. H. E. Gillett, Ramsay, N. J.

Dr. A. H. Trynin, Brooklyn, N. Y.

Dr. W. H. Hawkins, New York City

Dr. David Nalitt, Bayonne, N. J.

Dr. Fred Knowles, Boonton, N. J.

Dr. G. W. Warren, New York City

Dr. G. H. Mack, Bound Brook, N. J.

Dr. Alfred Stohl, Newark, N. J.

The object of this club is to bring into more intimate relationship the men from Johns Hopkins University and those from the University of Maryland, residing in New York, as well as the men living in Baltimore.

DEATHS

Dr. Lewis Bell Firey, Norfolk, Va.; class of 1890; aged 59; died January 1, 1925, of influenza.

Dr. Hamlet Jarvis, Elkridge, Md.; P. and S., class of 1880; aged 69; died, January 31, 1925.

Dr. Thomas M. Calladine, Niagara Falls, N. Y.; class of 1915; a World War veteran; aged 35; died January 26, 1925, of stomach trouble.

Dr. Alber Sidney Priddy, Colony, Va.; P. and S., class of 1886; physician in charge of the State Colony for Epileptics and Feeble-minded, formerly superintendent of the Southwestern State Hospital, Marion; aged 59; died, January 13, 1925, of Hodgkin's disease.

Dr. John Herbert Wilson, Cambridge, Maine; B. M. C., class of 1890, aged 60; died, December 29, 1924.

Dr. Howard W. Jones, Baltimore, Md.; class of 1903; aged 44; died, January 28, 1925, of complications following an operation for duodenal ulcer.

Dr. Daniel W. Smith, Baltimore, Md.; class of 1884; aged 70; died, January 29, 1925.

Dr. William Beverly West, Fort Worth, Texas; P. and S., class of 1885; formerly professor of dermatology and syphilology at the Fort Worth School of Medicine; died, December 26, 1924; aged 64.

Dr. Abraham Kevork Yoosuf, Worcester, Mass.; B. M. C., class of 1895; a World War veteran; aged 58; died, December 26, 1924, of heart disease.

Dr. Finley R. McGrew, Carnegie, Pa.; P. and S., class of 1880; aged 68; died, January 1, 1925.

Dr. Lucian Packard Waldron, Akron, Ohio; P. and S., class of 1882; died, January 1, 1925, of diabetes mellitus; aged 74.

Dr. Edward C. Coleman, Kosciuko, Miss.; class of 1885; aged 69; died, December 30, 1924.

Dr. Edward N. Carignan, Dover, N. H.; B. M. C., class of 1910, and Laval University, Faculty of Medicine, Quebec, Can., class of 1908; aged 53; died, January 14, 1925.

Dr. Junius L. Powell, Washington, D. C., Lt. Col., M. C., U. S. A., retired; class of 1867; commissioned assistant surgeon, 1879, retired on account of age, 1908; Confederate veteran, and of the Indian Wars, served in the Spanish-American War, the Phillipine Insurrection and the World War; aged 79; died, January 1, 1925.

Dr. Claude Clinkscales Gambrill, Abbeville, S. C.; class of 1898; served in the M. C., U. S. A., during the World War; aged 52; died, January 13, 1925, of heart disease.

Dr. David S. Hutton, Smithton, Pa.; P. and S., class of 1887; aged 71; died, January 10, 1925.

Dr. Clarence Franklin Strother, Johnston, S. C.; Washington University School of Medicine, class of 1876; aged 69; died, December 25, 1924, of heart disease.

Dr. James B. Black, Bamberg, S. C.; class of 1872; State senator; aged 75; died, January 9, 1925, of heart disease.

Dr. William J. Jennings, Thomasville, Ga.; B. M. C., class of 1898; aged 51; died, January 6, 1925, of angina pectoris.

Dr. William Holton Johnson, Baltimore, Md.; class of 1882; aged 68; died, February 15, 1925.

Dr. Arthur Leicester George, Albany, N. Y.; B. M. C., class of 1890; aged 69; died, January last.

Dr. Charles Otis Miller, Saxton, Pa.; B. M. C., class of 1896; aged 59; died, January 29, 1925, of cerebral hemorrhage.

Dr. Edward M. Singewald, Baltimore, Md.; class of 1888; instructor in neurology, Johns Hopkins University Medical Department, 1894-1914; aged 56; died, February 10, 1925.

Dr. Charles M. Morfit, Baltimore, Md.; class of 1861; aged 87; died, February 17, 1925. He served throughout the Civil War in the Confederate States Navy. Prior to the outbreak of hostilities he had passed his examination as a surgeon in the United States Navy, but when war was declared he cast his lot with the Southern States.

Dr. Frank W. Pearson, Baltimore, Md.; class of 1873; aged 75; died, March 7, 1925, of gastro-intestinal carcinoma.

Dr. Sullivan Adelbert Gaskill, Covington, Pa.; B. M. C., class of 1890; aged 77; died, January 10, 1925, of cerebral hemorrhage.

Dr. Gilbert McLeod, Carthage, N. C.; class of 1882; aged 67; died, February 1, 1925, following a long illness.

Dr. Augustus J. Bietz, Ravenna, Ohio; P. and S., class of 1880; aged 67; died, February 22, 1925, of septicemia.

Dr. Ralph Browning, Myersville, Md.; B. M. C., class of 1897; aged 55 years; died, February 9, 1925, of acute nephritis.

Dr. Nathan B. Bordensky, Baltimore, Md.; P. and S., class of 1907; aged 39; died in January, 1925.

Dr. William F. Hargrove, Kinston, N. C.; class of 1901; aged 62; died, February 28, 1925, of cerebral hemorrhage.

Dr. Frederick C. A. Kellam, Pungoteague, Va.; class of 1866; aged 79; died, January 5, 1925.

Dr. James C. Grier, McKinney, Texas; P. and S., class of 1891; aged 63; died, February 26, 1925.

Miss Natalie McCann, Dublin, Md.; University of Maryland Training School for Nurses; class of 1913; aged 33; died, March 14, 1925, of heart disease. She was one of the most popular graduates of this department; a woman of high ideals; an exceptionally efficient nurse and a credit to her alma mater. THE BULLETIN extends to her family its sincerest sympathy in the hour of their bereavement.



BOOK REVIEWS

Lectures On Pathology. By Ludwig Aschoff, M. D., Professor of Pathologic Anatomy, University of Freiburg, Germany. With 35 illustrations. New York: Paul B. Hoeber. 1924. Cloth, \$5.00 net.

This book is the result of a series of lectures delivered by Professor Aschoff while on a lecture tour in the United States during the spring of 1924. The problems discussed are still moot questions and as yet under investigation. They are yet to a large extent unanswered but the views of Dr. Aschoff upon them should be of more than passing interest to the scientific investigators of America. Herein are discussed such burning problems as the reticulo-endothelial system; the pathogenesis of human pulmonary tuberculosis; the concept of inflammation; pathological fatty changes; the normal and the pathological morphology of the suprarenals; arterio-sclerosis; ovulation and menstruation; the origin of bile stones; the site of the formation of the bile pigment; the goiter problem, especially the goiter of puberty from the morphological standpoint. Dr. Aschoff is an authority on the questions under discussion, which is enough to recommend the book. Each subject is presented in clear and forceful English. Whether Dr. Aschoff has interpreted the problems under discussion aright or not, matters little, for few can read what he has written without increasing their knowledge or without gaining a broader insight into matters which should interest the practical physician and surgeon equally as much as the pure scientist. We are indeed fortunate in having such a valuable contribution rendered available to the English speaking members of the medical profession.

Bacteria In Relation to Man. By Jean Broadhurst, Ph.D., Associate Professor of Bacteriology, Teachers College, Columbia University. 147 illustrations. Octavo of 304 pages. Philadelphia: J. B. Lippincott Company. Cloth, \$3.00 net. 1925.

The day of Sarah Gamp is gone. Today a nurse must have a working knowledge of the principles underlying her profession. This includes an intelligent insight into the factors governing health and disease, one of the not least important of which is bacteriology, as germs of one sort or another have a material influence on the happiness of the human family. For the purpose in view, Broadhurst's *Bacteria in Relation to Man* will be found most satisfactory. It begins with a general discussion of cells, then in succession takes up molds, bacteria, bacterial cultivation, air, water, soils, micro-organisms and human disease, etc. As a laboratory guide it will be found most helpful in enabling the student nurse to quickly, easily and intelligently grasp the essential features underlying the science of bacteriology and its practical application to the problems of life. A most useful feature is the list of references appended to each section. It affords us much pleasure to commend it most highly to our readers.

APPLICATION FOR MEMBERSHIP

THE ALUMNI ASSOCIATION
of the Department of Medicine of the

UNIVERSITY OF MARYLAND

Baltimore Medical College

University of Maryland

College of Physicians and Surgeons of Baltimore

Name

ADDRESS: Street.....

City

County

State

Graduate of the

School

Year

Military Service:

.....

.....

Member in Medical Societies.....

.....

.....

DUES, \$1.00.

NATHAN WINSLOW, M. D.,

Assistant Recording Secretary,

1900 Mt. Royal Terrace,

BALTIMORE, MD.







